

ECDC CORPORATE

Single Programming Document

2017



Following its Thirty-eighth meeting on 15-16 November 2016, the Management Board approved the ECDC Single Programming Document 2017.

Background:

- Regulation (EC) N° 851/2004 of the European Parliament and of the Council of 21 April 2004
- Article 14.5(d) – [The Management Board shall:] “adopt, before 31 January each year, the Centre’s programme of work for the coming year.”

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Foreword

Recent examples, such as the re-emergence of Ebola in Africa or the Zika virus show that despite increased scientific knowledge, predicting and preventing pandemics remains a challenge, as pathogens continue to mutate, adapt and spread in a context of increased globalisation of goods and persons. As a result, in the coming years, communicable diseases will remain high on the European health agenda, as they continue to constitute a source of concern for the health of European citizens, and are among the priorities of the EU Health Commissioner and Member States.

For the first time in 2017, ECDC Work Programme, renamed 'Single Programming Document' includes two parts: the first part presents our objectives and priorities for the next three years while the second part provides more detail on the specific objectives and expected outputs for 2017. This new structure aligned content-wise with ECDC Strategic Multi-annual Programme 2014-2020, and with the new guidelines from the European Commission now used by all EU agencies, aims at providing a more predictable horizon, with rolling multiannual objectives to be adjusted every year, as well as a clearer presentation that should help our stakeholders as well as Budgetary Authority to more easily review and understand the content of our work.

ECDC will continue to support Member States and the European Commission in preventing and fighting the spread of communicable diseases in Europe, in particular by monitoring known, new threats and threats of unknown origin, on the bases of its Founding Regulation and Decision 1082/EC/2013 on cross border health threats. Over the next three years, the Centre will continue to produce evidence-based, scientifically sound and independent assessments, guidance and advice, within the scope of its mission with focussing on making them more useful for decision makers.

ECDC will in particular:

- Further strengthen the scientific excellence and maintain its independence
- Optimise the usefulness of its outputs for its external stakeholders
- Support the European Commission and Member States in strengthening EU-wide preparedness and capacity building
- Focus on further development of relationships with relevant stakeholders
- Further enhance its efficiency
- Ensure it remains an attractive place to work.

Moreover, in 2017 antimicrobial resistance and vaccine preventable diseases will receive even stronger emphasis with additional resources dedicated to these two areas.

ECDC will continue to optimise its use of resources and processes. The ongoing Surveillance System Reengineering project will aim at an improvement in the speed, flexibility and responsiveness of ECDC for a better support to Member States and the European Commission.

In this context, the Single Programming Document constitutes an essential element to guide ECDC work and resource allocation during the year.

Andrea Ammon, MD PhD
Acting Director

List of acronyms

<i>ABAC</i>	<i>Accrual-Based Accounting, the EC integrated budgetary and accounting system</i>
<i>AMR</i>	<i>Antimicrobial resistance</i>
<i>ARHAI</i>	<i>Antimicrobial resistance and healthcare-associated infections</i>
<i>CAF</i>	<i>Common Assessment Framework</i>
<i>CCB</i>	<i>Coordinating Competent Body</i>
<i>CDC</i>	<i>Centers for Disease Control and Prevention, USA</i>
<i>CPCG</i>	<i>Committee on procurement, contracts and grants</i>
<i>CRM</i>	<i>Customer Relationship Management</i>
<i>DPO</i>	<i>Data protection officer</i>
<i>EAAD</i>	<i>European Antibiotic Awareness Day</i>
<i>EARS-Net</i>	<i>European Antimicrobial Resistance Surveillance System network</i>
<i>EEA/EFTA</i>	<i>European Economic Area/European Free Trade Association</i>
<i>ELITE</i>	<i>European Listeria Typing Exercise</i>
<i>EFSA</i>	<i>European Food Safety Authority</i>
<i>EMA</i>	<i>European Medicines Agency</i>
<i>ENIVD</i>	<i>European Network for Diagnostics of Imported Viral Diseases</i>
<i>ENP</i>	<i>European Neighbourhood Policy</i>
<i>ENPI</i>	<i>European Neighbourhood and Partnerships Instrument (or ENI – European Neighbourhood Instrument)</i>
<i>EOC</i>	<i>Emergency Operations Centre</i>
<i>EPIET</i>	<i>European Programme for Intervention Epidemiology Training</i>
<i>EPIS</i>	<i>Epidemic Intelligence Information System</i>
<i>EpiNorth</i>	<i>Co-operation Project for Communicable Disease Control in Northern Europe</i>
<i>EQA</i>	<i>External quality assessment</i>
<i>ERLI-Net</i>	<i>European Reference Laboratory Network for Human Influenza</i>
<i>ESAC-Net</i>	<i>European Surveillance of Antimicrobial Consumption network</i>
<i>ESCAIDE</i>	<i>European Scientific Conference on Applied Infectious Disease Epidemiology</i>
<i>EU</i>	<i>European Union</i>
<i>EUCAST</i>	<i>European Committee on Antimicrobial Susceptibility Testing</i>
<i>EUPHEM</i>	<i>The European Programme for Public Health Microbiology Training</i>
<i>EuroCJD</i>	<i>European and allied countries collaborative study group of Creutzfeldt-Jakob disease</i>
<i>EuSCAPE</i>	<i>European survey on carbapenemase-producing Enterobacteriaceae</i>
<i>EVD</i>	<i>Emerging and vector-borne diseases</i>
<i>EWRS</i>	<i>Early Warning and Response System</i>
<i>FWD</i>	<i>Food- and waterborne diseases and zoonoses</i>
<i>HAI</i>	<i>Healthcare Associated Infections</i>
<i>HAI-Net</i>	<i>Healthcare Associated Infections surveillance network</i>
<i>HIV</i>	<i>Human immunodeficiency virus</i>
<i>HSH</i>	<i>HIV, sexually transmitted infections and viral hepatitis</i>
<i>ICT</i>	<i>Information and Communication Technology</i>
<i>IRV</i>	<i>Influenza and other respiratory viruses</i>
<i>MediPIET</i>	<i>Mediterranean Programme for Intervention Epidemiology Training</i>

<i>MERS-CoV</i>	<i>Middle East respiratory syndrome coronavirus</i>
<i>MMR</i>	<i>Measles, mumps and rubella</i>
<i>MRSA</i>	<i>Meticillin-resistant Staphylococcus aureus</i>
<i>NFP</i>	<i>National Focal Point</i>
<i>NMFPs</i>	<i>National Microbiology Focal Points</i>
<i>OCS</i>	<i>Office of the Chief Scientist</i>
<i>PHC</i>	<i>Public Health Capacity and Communication unit</i>
<i>RMC</i>	<i>Resource Management and Coordination unit</i>
<i>SAS</i>	<i>Scientific Assessment Section</i>
<i>SLA</i>	<i>Service level agreement</i>
<i>SMAP</i>	<i>Strategic multiannual work programme</i>
<i>SMT</i>	<i>Senior management team</i>
<i>SRS</i>	<i>Surveillance and Response Support unit</i>
<i>STEC</i>	<i>Shiga toxin-producing Escherichia coli</i>
<i>STI</i>	<i>Sexually transmitted infections</i>
<i>TB</i>	<i>Tuberculosis</i>
<i>TESSy</i>	<i>The European Surveillance System</i>
<i>VBORNET</i>	<i>European Network for Arthropod Vector Surveillance for Human Public Health.</i>
<i>VectorNet</i>	<i>European Network for Arthropod Vector Surveillance for Human Public Health and Animal Health</i>
<i>VENICE</i>	<i>Vaccine European New Integrated Collaboration Effort</i>
<i>VPD</i>	<i>Vaccine-preventable diseases</i>
<i>VTEC</i>	<i>Verotoxin-producing Escherichia coli</i>
<i>WHO</i>	<i>World Health Organization</i>
<i>WHO/EURO</i>	<i>World Health Organization, Regional Office for Europe</i>

Mission Statement

The Centre's mission is laid down in Article 3 of the Founding Regulation,¹ which states that:

'The mission of the Centre shall be to identify, assess and communicate current and emerging threats to human health from communicable diseases. In the case of other outbreaks of illness of unknown origin, which may spread within or to the Community, the Centre shall act on its own initiative until the source of the outbreak is known. In the case of an outbreak which clearly is not caused by a communicable disease, the Centre shall act only in cooperation with the competent authority, upon request from that authority.'

The Centre's mandate can be derived from Article 168 of the Treaty on the Functioning of the European Union (EU), with an overarching principle of ensuring a high level of human health protection in the definition and implementation of all Union policies and activities.

ECDC's vision is to reduce the burden of communicable diseases in the EU.

We realise this vision by collecting relevant data, by cooperating with Member States and the European Commission and by complementing new and existing activities in our strategic areas of operation to increase the synergy of EU efforts.

Key tasks of the ECDC include:

1. Operating dedicated surveillance networks;
2. Providing scientific opinions and promoting and initiating studies;
3. Operating the Early Warning and Response System;
4. Providing scientific and technical assistance and training;
5. Identifying emerging health threats;
6. Collecting and analysing data;
7. Communicating on its activities to key audiences.

ECDC operates according to its core values: service orientation, quality based and one ECDC.

¹ Regulation (EC) No 853/2004 of the European Parliament and of the Council of 21 April 2004 establishing a European centre for disease prevention and control, Official Journal of the European Union. 2004; L 142:1–11.

I. General Context

Recent examples show that despite our increased scientific knowledge, there is no absolute certainty that mankind can predict pandemics and perhaps ultimately prevent them. Horizon scanning is slower than the speed of hidden mutations and adaptations of pathogens. Although the threats might not disappear and poverty problems are never really solved, our preparedness can increase and our response might improve and counteract massive damage.

The global dimensions of communicable diseases put pressure on all EU countries to first of all have their own defence systems and public health infrastructure in place and second to cooperate at a wider scale. Many of the drivers then are still the same today: people, planet, politics and new potential. The work of the agency will be influenced by these factors. (Emerging) threats force us to focus our attention, especially where limited resources require prioritisation and which also entails deprioritisation. So the Agency faces the challenge of 'less is more', similar to many Member States and the European Commission.

ECDC will therefore focus on a limited number of strategic objectives as set out below.

1. ECDC serves its mission best by continuing and improving to produce evidence-based, scientifically sound and independent assessments, guidance and advice. A stronger focus will be laid on the usability for decision makers and presenting the science to facilitate politicians at various levels to strengthen public health and increase health security.
2. To meet the challenges, ECDC will even more invest in strategic partnerships ensure the collaboration with all actors in the field and the coordination of activities will result in synergies.
3. To better tailor ECDC capacity building and other support activities to the countries, ECDC will have to learn more about the public health structures in the countries by enhancing the dialogue with coordinating Competent Bodies. By doing so, the support and collaboration will meet the prioritised needs of the countries.
4. To further improve efficiency and further clarify responsibilities in close cooperation with relevant stakeholders, whilst retaining control over quality and service delivery. This approach must keep a focus on the way that information is managed. It will also create opportunities for both scientific and non-scientific staff to develop and utilise their skills in the most effective ways.

In this way ECDC will be able to help reduce the burden of communicable diseases and help realise the political goals set out by the European Commission and Member States. Moreover, along these lines ECDC will assure that the recommendations of the second external evaluation are securely internalised.

Political context.

Politics are a strong driver for investments in public health. The European Commission has set more ambitious goals to improve health, including infectious diseases, and the legislation on cross border threats to health opens new possibilities for cooperation and coordination, and above all to reach better generic preparedness, leading to more inter-sectorial coordination and business continuity and capacity planning. These efforts are complemented and, where requested, coordinated by ECDC's technical support. In line with increased preparedness the increase in vaccination coverage is an essential element in the European Commission's political priorities as one of the strongest protection measures. Even where these are not available, joint efforts are needed to tackle in particular HIV/AIDS, Tuberculosis and Hepatitis.

Antimicrobial resistance poses increasing threats to our healthcare achievements and has gained wider recognition by the adoption of WHO's global action plan for AMR. ECDC will continue and intensify the wider cooperation and support with a wide variety of stakeholders. Nothing less than a coordinated approach will work towards heightened awareness and behavioural change. The point

prevalence studies of ECDC, the repositories on best practises and training efforts in hygiene control will be beneficial for the EU at various levels. And it will involve the further alignment with EFSA and other stakeholders in the 'one health' approach. The potential of increased synergy in the collaboration with other EU agencies will be further explored. Political developments in particular the massive stream of migrants and refugees have magnified the need of an integrated EU approach to vulnerable groups, which includes specific provisions regarding communicable diseases and vaccination coverage topics.

Member States in the EU still differ significantly in economic power, wealth and healthcare systems which affect the socio-economic status, an important health determinant. Against this background capacity assessments of the Member States and understanding their needs is vital, and will be done in a way to minimise the burden for Member States. At the political level commitment has to be found to find resources, at the technical level it will lead to greater benefits of the Member States of ECDC efforts. One such area is the potential of new technologies where a growing inequity might lead to a long and winding road to implement more powerful tools in reducing the burden of infectious diseases.

Other major determinants.

People's behaviour remains a challenge in the fight against communicable diseases. From unsafe sex through vaccination hesitancy to improper use of antibiotics, the human factor is a major drive for better or worse. Reason alone will not win the day. The same applies to the behaviour of professionals in healthcare; significant improvements in hygiene control do not come by themselves. Our planet changes more rapidly than before and mobility, including migration, induces a bigger need for global awareness and exchange of data and open sources for information. Ecological and climate changes lead to introduction of new vectors for diseases. There is a need for improved monitoring and modelling of different scenarios to harness preparedness.

The potential to be better prepared for existing and future threats is increasing, following the recent experience and lessons learnt from the Ebola epidemics in West Africa. The toolbox for preparedness will increase in power, not the least by Information and Communication Technology (ICT) data management. Technology continues to open new windows of opportunity to faster detect and communicate risks and enable policy makers to implement risk management actions. ECDC will have to assess the opportunities and challenges these new technologies present for the work at EU and MS level and the potential impact on public health.

ECDC's human resources will decrease in the coming years until the reduction of 20 full time equivalents has been reached in 2018. The only way to meet this challenge is to streamline our procedures within the requirements of the existing regulations and increase smooth and easy mechanisms for cooperation. Investing in electronic workflows in a structured way and empowering staff will result in higher efficiency so that ECDC can continue to deliver the benefits of collection of data at the EU level that change decision making and will continue to cooperate with stakeholders to align new initiatives and existing improvements to get the best value at the lowest costs.

ECDC will seek synergies and consider collaboration, subject to available resources, with ongoing research projects funded through the Horizon 2020 mechanism, also within the Innovative Medicines Initiative (IMI) 2, and of any other relevant research or capacity-building projects within the scope of Centre's mandate.

II. Multi-annual programming 2017-2019

Introduction

II.1. Multi-annual objectives

The identification of four multi-annual, overarching objectives for the programming period 2017 – 2019 is based, on the one hand, on the continuous adaptation to meet the objectives set out in the Founding Regulation in the light of the general context as outlined above. Secondly, the selection of priorities takes into account the recommendations from the Management Board based on the second external evaluation as well as the feedback during the September 2015 Joint Strategic Meeting. And thirdly it takes into account the priority setting of the European Commission regarding communicable diseases.

Multi-annual objectives

1. ECDC to be the agency that produces evidence-based, scientifically sound and independent assessments, guidance and advice, within the scope of its mission, which are used by decision makers to improve public health.
2. Strengthen strategic partnerships.
3. Getting closer to the countries
4. Increase the efficiency of ECDC outputs

Expected results

The outputs will be used by decision makers at EU and Member state level because they are based on what they need to know and are presented in a usable way. ECDC's outputs are used by decision makers as basis for improving prevention and control of infectious diseases.

Ensure the collaboration with all the actors in the field and assure that the coordination of activities will result in synergies.

ECDC support activities to the countries will meet the prioritised needs of the countries.

Clearly defined roles and responsibilities, accompanied by appropriate electronic workflows and well-known internal processes facilitate efficiency.

The new ECDC premises will foster the internal cooperation and the wellbeing of the staff, thus supporting the overall vision.

Strategic areas:

These four multi-annual objectives impact the focus of ECDC's work in the following six strategic areas:

1. Further strengthen the scientific excellence and maintain the independence of ECDC;
2. Optimise the usefulness of ECDC's outputs for our external stakeholders;
3. Support the European Commission and MS in strengthening EU-wide preparedness and capacity building;
4. Focus on further development of relationships with relevant stakeholders;
5. Further enhance the efficiency in ECDC;
6. Ensure ECDC as an attractive place to work.

In the following chapters the strategic areas of operation will be briefly summarised with a view of

what ECDC wants to achieve by the end of 2019 and who should benefit from our products in particular. These multi-annual priorities are based on the Strategic Multi-annual Work Plan 2014-2020 which will be assessed and updated in 2016, leaving room for confirming and adapting previous priorities, adding other priority areas and marking negative priorities.

II.2. Strategic areas of operation

II.2.1 Surveillance and Epidemic Intelligence

Surveillance

By the end of 2019 the following objectives will be achieved:

- 1. The ECDC Surveillance System has been reengineered and is providing advanced analytical surveillance outputs in order to enhance the timeliness of the detection of threats and the empowerment of MS for the steering of prevention and control programmes. [Strategic area 2 – see p.9]*

This objective would modernise and upgrade surveillance in several areas. Improved reliability and user-friendliness of tools for surveillance data collection together with simplification and semi-automation of surveillance processes reduce the burden for the Member States. The ECDC surveillance tools are interoperable, allowing for timelier data exchange, analysis and assessment of threats. Enhanced surveillance outputs through the disease atlas, business intelligence platform, threat-monitoring dashboards integrating indicator and event-based data, and advanced analytical approaches (modelling) are making surveillance data more valuable and informative for decision makers.

Internal experts would benefit from this achievement, together with national experts in public health institutes and ministries of health. A wider community of academic researchers would also benefit from better data access including a full set of operational toolboxes.

- 2. The majority of EU/EEA indicator-based surveillance systems have been evaluated. As a result, objectives for surveillance are updated and the set of data to be provided by Member States reviewed in order to optimise surveillance operations and decrease the burden on MS [Strategic area 2 – see p.9]*

This project is expected to last from 2017 to 2020 and should have covered the majority of Enhanced EU/EEA surveillance systems by 2019. The order in which surveillance systems will be evaluated will mirror as much as possible the order in which their coordination was transferred to ECDC to allow for sufficiently long time periods to be evaluated for each surveillance system. The objective is to identify and correct systemic weaknesses in order to ensure that each of the EU/EEA surveillance systems fully meets its objectives in the most efficient way, generating the information required by the European Commission and the Member States for effective public health prioritisation and action. This will result in decreasing the reporting burden on the Member States by ensuring that all collected data contribute to the ECDC outputs and in a roadmap to create the set of outputs that meets the needs of ECDC stakeholders.

Member States surveillance experts will benefit from this review as well ECDC disease programme experts as well as stakeholders who will get the information they need for monitoring and decision making.

- 3. The inclusion of molecular typing has been consolidated for the diseases prioritised at European*

level [Strategic area 2 – see p.9]

This activity aims at consolidating the operations of the surveillance systems for which molecular typing information has been incorporated as part of the pilot study, unleashing their full potential. Such systems are evaluated for their performance and impact every year according to the indicators set in the strategy document which triggered their establishment. Usefulness and effectiveness are among such indicators, together with an estimation of the national resources needed for contributing to the European level surveillance. The achievement of the set objectives will drive the process for the consolidation and for the inclusion of typing and sequencing data for additional diseases.

4. *ECDC has developed and piloted along with Member States a list of defined surveillance indicators for steering disease programmes and detecting changes requiring possible intervention. [Strategic area 2– see p.9]*

Indicator-based surveillance addresses two main complementary objectives: providing indicators to allow steering disease-specific prevention and control programmes and indicators for the detection of outbreaks or other changes in epidemiological patterns requiring a public health response. Each indicator is defined along with a target value (for steering prevention and control programmes), a threshold value (for detecting changes in epidemiological patterns) and a quality index (e.g. completeness), which constitute a metadata set of indicators.

This is an approach aiming at detecting changes timely and drive (disease) programmes based on enriched surveillance data with meaningful targets and thresholds. A first pilot will have been carried out by end of 2019 and the preparation will start in 2017.

5. *ECDC has enabled Member States to deliver trustworthy data, ready for use. [Strategic area 2 – see p.9]*

The classical paradigm in EU/EEA surveillance is the submission of case-based data by the Member States and the subsequent data control, data cleaning, validation and storage of “ready-to-use” approved data. For influenza, during the transmission season, Member States are sending weekly pre-compiled indicators allowing the timely production of the weekly influenza bulletin. ECDC plans to complement its case-based approach to data collection by allowing more frequent reporting of indicators for epidemic prone diseases for which timeliness would add value.

Special attention will be given to ensure that the reporting of compiled indicators does not impair the quality and comparability of the data.

ECDC aims to have piloted this approach for three diseases or conditions identified during the evaluation of surveillance systems by the end of 2019.

6. *Threat detection as per event surveillance will be continually improved [Strategic area 3 – see p.9]*

The daily screening of different information sources is permanently performed and updated in ECDC. The improvement of the platforms and tools used by the Epidemic Intelligence team will continue in 2017, additional attention will be given to the social media as a source for signals. The surveillance system reengineering (SSR) will allow the integration of the surveillance and epidemic intelligence tools (i.e. TTT, EPIS, EWRS and TESSy) enhancing the detection and validation of signals.

The aggregators routinely used in epidemic intelligence will be further evaluated and modified to enhance the quality and significance of the signal detection. Mobile applications developed in ECDC will improve the availability and dissemination of outputs.

Epidemic intelligence

By the end of 2019 the following objectives will be achieved:

1. *By 2019 the EPIS platforms are interoperable with each other and the EWRS, providing an integrated set of platforms supporting the MS and the European Commission in the full implementation of the 1082 legislation in the field of threat detection and assessment. [Strategic area 3 – see p.9]*

With the implementation of Decision 1082 on serious cross-border threats the chain of communication and responsibilities has extended to the health security committee (HSC). As a consequence, the supporting tools for threat detection and assessment need to be adjusted to ensure appropriate escalation of events at each levels, from technical issues up to the political and decision making level. In that sense the ongoing Surveillance System Reengineering Project will include the update of the EPIS platforms and will consider among other topics, the development of platforms for disease programs that are currently not benefiting from this tool.

As the operator of the EPIS and EWRS platform, ECDC will steer the adjustment process with MS and the European Commission. This process will be shared and discussed with the HSC.

As conducted in the past, the epidemic intelligence activities will include the monitoring of the risk of transmission of communicable diseases through substances of human origin (SOHO).

II.2.2 Scientific Advice and Microbiology

Scientific Advice

Excellence in scientific advice is a pre-requisite for producing clear and useful products that are relevant for decision makers. We aim to give the best independent advice to public health professionals and policy makers and therefore we strive for high standards and a recognised quality.

By the end of 2019 the following objectives will be achieved:

1. *ECDC has consolidated its position as a source of transparent, high-quality and useful scientific advice. [Strategic area 1 – see p.9]*

ECDC will continue its work to increase scientific excellence, transparency and evidence-based nature of the processes and procedures for the development of scientific advice. Out of the three defined types of scientific advice outputs which ECDC produces, systematic reviews and guidance are based on stronger evidence base which comes from a systematic search for and synthesis of evidence and ECDC will endeavour to develop more systematic reviews and guidance in the future. The third output type, the expert opinions, is a valuable product especially under the pressure of time, when ECDC has to provide scientific advice at a short notice. A factor which greatly impacts scientific excellence and transparency is prioritisation of scientific advice work. ECDC will further develop its tools to support such prioritisation and increase its transparency, to ensure more focus of the Centre's work in

addressing issues which are most important for the Member States. ECDC will also continue to make every effort to increase the usefulness of its scientific advice. Finally, ECDC will develop a policy that covers the handling of conflict of interest if the Centre is to work in consortia including industry, such as for example in the Innovative Medicines Initiative (IMI) ADVANCE project. This is an area where innovation is welcomed by policy makers, professionals and patients, but at the same time the commercial interest may lead to reduced trust and more suspicion. ECDC is well positioned to take leadership in ensuring scientific independence of studies run as part of such innovative initiatives.

2. *ECDC's responsiveness to scientific advice assumes a broader scope and more targeted experts. [Strategic area 1 – see p.9]*

Responsiveness to stakeholders regarding scientific issues should not only be timely, but it should include better framing of the issues at stake and earlier stakeholder consultation of draft scientific advice documents. ECDC will further optimise its database of experts to have easy access to the best available expertise and to react better to changing needs and priorities of the stakeholders in the coming years. Having access to excellent external and internal expertise is of crucial importance, and ECDC will continue to invest in this e.g. by further strengthening collaboration, applying a thorough selection of contractors and contributors to scientific work, and capacity building in quantitative and qualitative epidemiological, statistical and evidence-based public health methods. ECDC will also work on developing access to expertise in mathematical and health economic modelling as well as other areas considered relevant to further improve the quality and relevance of the Centre's scientific advice.

Microbiology

The contents of this chapter are depending on further development by the European Commission, in collaboration with the ECDC and WHO of the options regarding the future EU laboratory strategy. This approach would bring further clarity to the tasks of ECDC and to inform the subsequent development of agreed objectives on laboratory issues (as suggested by ECDC External Evaluation).

By the end of 2019 the following objectives will be achieved:

1. *ECDC has assessed and reported on the capacity level of the EU public health microbiology system for EU-wide surveillance of communicable diseases and epidemic preparedness using indicators jointly developed with the Member States and has reviewed the validity and usefulness of the information so provided with the Member States and the European Commission. [Strategic area 3 – see p.9]*

By 2019, the EU laboratory and capacity monitoring (EULabCap) system has assessed the critical laboratory capacities and capabilities in the Member States and at the EU level on several occasions. This capacity should be in line with existing EU guidance and regulation. The trend in capacities will be first evaluated in 2017 and will show to which extent the EU has achieved 'sufficient' levels of laboratory services for the public health surveillance, threat detection, risk assessment, outbreak response and support. Also by 2017, ECDC will have jointly reviewed with the Member States and the European Commission the validity and usefulness of the information provided through EULabCap as an evidence base to inform policy development and country support actions. In the remaining period up to 2019 the next capacity level of surveillance and epidemic preparedness could be achieved,

assuming that sufficient support and resources are made available to take the necessary actions, including collaborations between Member States.

2. *Well administered and effective EQA schemes complement the efforts performed by Member States, WHO and the European Commission and are accompanied by technical guidance and expert training. [Strategic area 3 – see p.9]*

External quality assessments have their roots in the disease networks that were integrated into ECDC. The coordination of EQA schemes by ECDC is much valued and opens opportunities for improvement and mutual exchange. ECDC's EQA's focus on strengthening public health surveillance and threat detection testing. In 2019 they are run by Disease Programmes as fully complementary efforts to other activities in this field driven by the Member States, WHO and the EC respectively. The EQA schemes get a new dimension in view of the developing techniques in molecular typing, most notably the whole genome sequencing (WGS). This brings challenges and opportunities, which are in part met by ECDC through the EUPHEM training programme and technical guidance, including the EULabServe directory of specialist services, expert training, twinning and exchange programmes within Disease Networks that facilitate the adoption of new techniques for public health surveillance and control.

3. *The regularly updated strategic roadmap for integration of molecular and genomic typing data into surveillance has guided the collaborative efforts with the Member States to optimise the efficiency of EU-wide surveillance of high priority diseases and antimicrobial resistance issues. [Strategic area 2 – see p.9]*

Rapid developments in the innovative possibilities for molecular typing affect the original roadmap formulated earlier. In particular WGS changes the landscape for molecular typing and offers significant potential gains in cost-efficiency as a transforming, multi-purpose technology for pathogen identification and characterisation. Therefore ECDC has established the Molecular Typing for Surveillance Taskforce to provide advice that will help the Centre design a WGS strategy for public health applications, as well as prioritise and update proposals for genomic typing use for surveillance. The technological advances also risk deepen the inequities between the Member States and pose new questions on where to use the available resources best. On the one hand molecular typing is useful for outbreak alert and investigations, but other public health opportunities also contribute to inform prevention policies and thereby reduce the burden of communicable diseases. These opportunities include the use of WGS for monitoring dissemination of AMR and vaccine effectiveness. In the coming years up to 2019 ECDC will continue to develop the roadmap and collaborate with Member States to ensure the most important, EU wide value given the available resources.

4. *The further integration of EU clinical laboratories, public health and veterinary laboratories has resulted in a joint, integrated One Health report for human and zoonotic pathogens. [Strategic area 2 – see p.9]*

Over the recent years the joint reporting with EFSA on zoonotic diseases and antimicrobial resistance has made major progress under the Food- and Waterborne Diseases and Zoonoses programme, but ECDC expects that the cooperation can and will improve from further harmonisation of surveillance methodology from the human and veterinary sector to strengthen integration of data. This will lead to more compatible and powerful information, and open new perspectives for decision makers. Using harmonised methodologies and inter-operative databases for typing strains and characterising

antimicrobial resistance will truly contribute to a one health approach based on consistent information for risk assessment.

II.2.3 Training and Capacity building

Training

By the end of 2019 the following objectives should have been achieved:

1. *A new Continuous Professional Development Programme (CPDP) is operational in providing training for at least 300 member state experts per year in core functions for disease prevention and control, in particular for antimicrobial resistance and health care acquired infections. [Strategic area 3 – see p.9]*

There is a clear need to focus on continuous development of senior officials and experts in public health. The looming threat of the decreasing workforce due to demographics and the absence of training opportunities for seniors will be (partly) addressed by this CPDP initiative. The national focal points for training will prioritise and help shape the contents. Amongst these are already identified leadership skills, addressing decision-makers, knowledge of available (ECDC) tools and commitment to cascading down training and skills development. E-learning will offer easier access and a greater outreach and the training offerings of the CPDP will rely on an in-kind contribution of Member State experts for teaching and facilitation. By 2019 a country-driven catalogue of courses will be available and in use.

2. *The fellowship programmes have become harmonised into a single programme training 40 junior specialists in intervention epidemiology or public health microbiology per year. [Strategic area 3 – see p.9]*

Based on the further developments in the mid-career training programmes it is considered desirable to bring the EPIET and EUPHEM pathways together in one single, coherent programme with options for differentiation based on the background of the trainees and the discipline specific competency profile they choose to train in. The single programme should offer the possibility for a broader approach by for instance adding a hospital hygiene differentiation, and in the long run differentiations to other public health relevant disciplines might be considered depending on recognised needs and urgencies.

3. *The ECDC Virtual Academy is fully operational and makes distant learning courses freely available for all public health staff in the EU and offers a blended learning approach to all ECDC coordinated training efforts for the primary target group as defined in the strategy. [Strategic area 3 – see p.9]*

ECDC's approach towards capacity building and training will grow towards offering blended learning (mixed face-to-face and e-learning) approach for the primary target groups of the ECDC Public Health Training strategy: these are the experts with formal roles in the ECDC Coordinated Competent Bodies network (various focal points, operational contact points, National Coordinators, AF and MB members and their alternates). For this blended approach, e-learning is the cornerstone. Although most courses will be mostly 'class room facilitated' and face to face tutors remain needed, we expect an increased capacity for training and new opportunities for more personal targeted training goals. E-learning platforms will also come available to the Member States for optional translation and internal cascading in the countries. The platforms are ECDC's contribution, the MS take a shared responsibility for the modules and the adapted contents. We expect that National institutions of Public Health will benefit most, among them those involved in the CPDP initiatives. Key to the operational success of the distant learning and blended learning approach of ECDC will be the development of a network of online expert moderators and course managers. According to the strategy, Member States will be expected to maintain a critical mass of training capacity and to contribute to cascading ECDC training efforts to subnational levels. The network of facilitators that ECDC aims for shall be a faculty existing of MS identified experts.

4. *Training participants will actively participate in efforts led by National Focal Points for Training for cascading down the training to local, sub regional levels. [Strategic area 3 – see p.9]*

By the end of 2019 ECDC expects that the training programmes (ECDC Fellowship Programme and CPDP) have reached the full ramification of cascading down into the countries. In fact, one criterion for enrolment to the programmes is the commitment to participate in cascading down training. Therefore didactical skills will be provided in the programme and training tools and materials will become available. In view of still limited resources in many countries the multiplication of training investment by ECDC will require successful national trainers. As a whole, the workforce involved in communicable diseases may benefit at various levels of professional skills. ECDC will facilitate the creating of a 'faculty of online moderators and facilitators', primarily drawing from the group of participants to the training programmes and their supervisors.

5. *All offers for training will be based on solid needs assessments which will be regularly updated. [Strategic area 3 – see p.9]*

All preparedness support and training aims to support and increase the capacity in the MS. What the MS need, however, strongly depends on the head counts and available preparedness on the one hand (how many professionals do we have / need? Are preparedness systems in place?) and the qualifications of personnel to really do the job. The structure of public health in the various MS differs significantly and so do the professional requirements, from a strong accent to a medical background to more natural sciences qualification for microbiology and epidemiology. This has significant bearings on the needs assessment for training. ECDC can build on the present ongoing assessment, but needs to keep regular update in place to make certain that the offers for training keep close track with the identified and verified needs. The best value for money increases the benefits for the whole EU.

4.2 Coordinated country support

By the end of 2019 the following objectives should have been achieved:

1. *Capacity support to Member States has become an integrated, coordinated and sustainable ECDC effort based on agreed needs assessments and available resources. [Strategic area 3 – see p.9]*

The second external evaluation made an explicit appeal to ECDC to 'get closer to the countries'. A better understanding of the variety of health systems and a systematic assessment of country needs would allow a more strategic investment of ECDC resources. Similarly European Commissioner Andriukaitis launched an initiative to compile country health profiles with the aim to highlight where improvements are needed, to point to all tools available and to trigger improvements.

To increase ECDC's impact we want to co-develop robust mechanisms for a broader, country-driven assessment of needs in the field of communicable disease prevention, detection, control and human resources. The purpose is not only to assess country needs, but to include a multi-country dimension (group of neighbouring countries or countries sharing the same health problems) in order to align initiatives and increase synergetic efforts. By 2019 this will have resulted in a close, coordinated approach of ECDC to respond to country needs.

International relations

In accordance with the priority setting identified in the ECDC International Relations Policy 2014-2020, the key strategic objectives of ECDC's international relations activities in the next years are formulated below.

By the end of 2019 the following objectives will be achieved:

1. *The capacities of all EU enlargement countries for the prevention and control of communicable diseases and their progress in terms of implementation of EU acquis has been assessed. In addition,*

the implementation of technical collaboration action plans with ECDC has been initiated- with a view to progressively increase the involvement of these countries in ECDC activities, systems, and networks as observers or full partners. [Strategic area 3 – see p.9]

Further development of technical cooperation and exchange of information with countries bordering the EU remains a key focus of ECDC's international relations for this period. Within this group of countries priority is given to the EU enlargement countries. To reach the objective ECDC will continue to conduct at least one technical country assessment each year based on the request from the European Commission. At the same time ECDC will continue supporting the countries in developing action plans based on the assessment recommendations and follow the progress made in its implementation. With changing EU acquis as well as global external assessment initiatives, the assessment tools will need continuous alignment.

If the outcome of the present pilot phase of the EU enlargement countries reporting selected communicable diseases to TESSy will be positive, this activity will be extended in the years to come to cover more diseases notifiable at the EU level. Towards the end of 2017 selected EU enlargement countries should be technically able to report to TESSy. The same applies to the participation of these countries in thematic EPIS platforms: should there be a mutual added value of participation in food and water-borne diseases (FWD) and Travel associated legionella diseases EPIS platforms EU enlargement countries will be full and active members of all existing thematic EPIS platforms by 2020.

The participation of EU enlargement countries in ECDC microbiology focal point forum as observers was piloted in 2014, and countries found this very valuable in promoting the role of the public health microbiology in communicable disease surveillance. In 2015-2016 this has been extended to cover also national focal point forums for preparedness and threat detection (epidemic intelligence) as requested by countries themselves. Should the evaluations of ongoing observe roles and their impact at national level remain positive, then these will be further expanded to cover the rest of ECDC focal point fora.

2. ECDC has established contacts for cooperation as well as a set of well-established and sustainable procedures in place with the European Neighbourhood Policy (ENP) partner countries. All activities fall within the wider framework of existing agreements between the EU and these countries and will support approximation of EU standards within ECDC remits, and ensure efficient and timely technical cooperation between the EU and ENP experts. It should be noted that should there be no external EU funding for ECDC these activities will be stopped. [Strategic area 3 – see p.9]

ECDC's cooperation with the ENP partner countries aims at supporting the overall policy objective of the European Neighbourhood Policy, namely to bring these countries closer to EU standards through strengthening their capacities and approximation of practises and legislation.

Based on the learnings of the implementation of the ENP grant 2014-2016 and pending on the availability of further EU external funding the ECDC will continue the collaboration with ENP partner countries. Step-by-step ENP partner countries will be integrated in the work of ECDC through participation in regular ECDC network meetings, scientific conferences (e.g. ESCAIDE), training events, as well as integration of experts to selected thematic EPIS platforms (starting from food and water-borne diseases and travel associated legionella disease) as well as selected TESSy reporting. All these activities will be evaluated and if the outcome is positive extended further.

ECDC will continue supporting the European Commission in the implementation of the new Association Agreements (AA) between the EU and three Eastern Partnership countries (i.e. Georgia, Moldova and Ukraine). Based on the assessments of communicable disease prevention and control systems in these

countries, using the same methodology as in the EU enlargement countries, ECDC will support the country in developing an action plan, and will support the European Commission in monitoring its implementation in the frame of the Association Agreement.

The MediPIET II- training programme in intervention epidemiology will come into an end in 2017. Capacity strengthening is one of the biggest needs as well as challenges in ENP countries. Presently the main challenge is to find a mechanism for long-term and sustainable funding and programme governance.

3. ECDC is a close partner of the major centres for disease prevention and control across the globe, a trusted provider of data and scientific evidence, with the capacity to mobilise EU expertise in order to provide technical support and assistance (e.g. for outbreak investigations). [Strategic area 4 – see p.9]

In order to achieve this objective and with a view to support the continuous improvement of threat detection through cooperation with other centres for disease prevention and control, ECDC will continue the implementation of monitoring and evaluation framework for the existing bilateral agreements between ECDC and main global CDCs. ECDC will also systematically harmonise the implementation of these agreements, including regular follow up/coordination meetings.

II.2.4. Preparedness and Response

Preparedness

By the end of 2019 the following objectives should have been achieved:

1. Technical support provided to Member States and European Commission to strengthen public health emergency preparedness in line with the Decision 1082 and IHR on cross border threats to health. [Strategic area 3 – see p.9]

It is foreseen that ECDC will make tools and guidance documents available to help raise the level of generic preparedness. The emphasis will be on strengthening strategic partnerships and technical support: regional and country specific on-site support. Activities include collection and dissemination of practices, exchange of experience, peer consultations, simulation exercises (incl. capacity building on how to plan and organise), collection of evidences on risk ranking, incidents review analysis and discussions on evaluation practices.

2. Support exchange of knowledge and practice among relevant professionals and organisations in EU and regional level to further strengthen capacities and outbreak management. [Strategic area 3 – see p.9]

Through organisation of NFP meetings, expert workshops on thematic issues, cross-border and cross-sectorial simulation exercises, and the promotion of operational research in public health emergency preparedness ECDC will have created a solid basis for a network of preparedness and response experts able to identify critical aspects of public health systems vulnerabilities and address them with technical cooperation between countries and agencies.

Response

By the end of 2019 the following objectives will be achieved:

1. *The production of rapid risk assessments for emerging threats is strengthened by allowing MS national focal points to contribute to their production and review on a dedicated platform. [Strategic area 3 – see p.9]*

The rapid risk assessments for emerging threats to the EU is an output valued by Member States for its timeliness. It allows Member States to rapidly access the latest information on emerging threats and to get options for their prevention and control, based on the most updated available evidence. The process for their production will be further enhanced by allowing Member States to directly access RRA in progress and provide contribution. The criteria for producing RRA are considered in different documents in ECDC. In summary the main triggers for a RRA are:

- Outbreaks of communicable diseases, antimicrobial resistance and healthcare associated infections related to communicable diseases and threats of unknown origin affecting more than one Member State
- Spatial or temporal clustering of cases of diseases of a similar type if pathogenic agents are a possible cause and there is a risk of propagation between Member States
- The appearance or resurgence of a communicable disease, an infectious agent or any of the threats mentioned above, which may require timely coordinated EU action to contain it
- Manifestation of a disease or an occurrence that creates a potential for a public health emergency of international concern as defined in the International Health Regulations (IHR 2005), the related measures to be notified to the World Health Organization under IHR 2005, and the EU Decision 1082 on Cross Border Threats for Health
- Risk assessments and preparedness plans will cover, when relevant, aspects related to the safety of substances of human origin (SoHO) regarding the risk of transmission of communicable diseases.

2. *The response support function of ECDC has been strengthened on the basis of lessons learnt during the Ebola outbreak, in the EU/EEA countries, as well as beyond the EU. [Strategic area 3 – see p.9]*

The experience around Ebola have shown the added value of ECDC in the mobilisation of public health response teams in and beyond the EU/EEA. ECDC will strengthen its preparedness to address requests for technical support so as to be ready to react swiftly and appropriately. To this end, procedures and tools will be developed in liaison with MS and the European Commission services to guarantee that ECDC can act as the established source of technical support, including the identification of experts able to contribute and mechanisms to take care of logistics, communications, coordination between Member States and field tools for rapid deployment.

3. *The ECDC Emergency Operation Centre will be further strengthened to support ECDC in its coordination role for risk assessment during public health emergencies. [Strategic area 3 – see p.9]*

The ECDC emergency operation Centre has been instrumental in allowing ECDC to support Member States in their response to the Ebola epidemic. The dispatching of around one hundred experts in the field, coming from MS and from ECDC has highlighted the need for strengthening the communication function as well as the provision of remote support to the teams. These functions will be strengthened in liaison with the European Commission and the Member States.

II.2.5 Communication

By the end of 2019 the following objectives should have been achieved:

1. *ECDC has efficiently reached out with its scientific and technical outputs to its core target audiences. [Strategic area 1 – see p.9]*

ECDC communication is targeted at health professionals, policy-makers, health communicators and media across Europe as its key audiences. The basis for the communication activities is the ECDC web portal, which in its next version will be more user-centric and adaptable to technological developments and trends. It will also better enable us to support different content formats. ECDC will develop content that is media friendly and web-based, and where media and social media outreach will be integrated. ECDC has produced a significant volume of available scientific and technical content useful for experts around Europe, and improving the awareness and availability of this content will be a critical task. Continuing to improve the availability of ECDC scientific content will be achieved through, amongst other actions, a better navigable website and increased use of social media.

2. *ECDC has technically supported the risk and crisis communication capacities of Member States as part of the generic preparedness plans under Decision 1082/2013/EU. [Strategic area 3 – see p.9]*

In a broad sense ECDC communication activities support Decision 1082 in two distinct ways: supporting countries with the provision of risk assessments and supporting countries develop the appropriate risk communication preparedness and capacities.

ECDC risk assessments play a critical role in the risk/crisis communication process, in particular by providing independent and European wide evidence to support appropriate management responses. ECDC will play a key role to support the co-ordination of communication messages process, as laid down in Decision 1082, by ensuring that the Health Security Committee has rapid and objective information upon which to take appropriate decisions.

Risk and crisis communication preparedness and capacity building are also fundamental building blocks to successfully managing any outbreak. ECDC will continually work with the countries to identify needs, either based on communication materials and tools or training, which will allow them to deal with health related risk and/or crisis communications. Member States require different support to Decision 1082 and thus communication will work hand in glove with ECDC training and preparedness teams to deliver the appropriate support.

3. *In line with a stronger focus that ECDC's products gain more value for decision makers, ECDC has developed formats for re-usable information for the Member States. [Strategic area 2 – see p.9]*

Although the recommendation to make ECDC's products of more direct value to decision makers affects all levels of our organisation, communication has a particular role for all ECDC target audiences. However, continuous investments in the website and communication channels will pay more attention to target decision makers with products that can be used at the national level. An existing example is the co-creation of material for the European Antibiotic Awareness Day, which will be affected by WHO's global action plan regarding antimicrobial resistance. More and more countries would in the future be able to use ECDC developed content e.g. infographics, and adapt them to their national communication strategies, although some countries will prefer their own material and visualisation. For other levels of communication ECDC aims to have developed new formats which will be suited best for its mix of target audiences, without compromising on scientific quality or national responsibilities. This will be a gradual process for which feedback is vital and which will result in new formats and products over time up to 2019.

Eurosurveillance outlook 2017 to 2019 [Strategic area 1, 2 – see p.9]

ECDC became publisher of *Eurosurveillance* in 2007 and the journal has since grown and gained

reputation as credible source of rapid and regular source for scientific and public-health-relevant information for the prevention and control of communicable diseases. It has been ranked among the leading top-ten journals in its category after its first impact factor was released in 2012. The second ECDC external evaluation has confirmed that experts and policy makers in the European Union deem the journal of high value and useful for their work.

For the years 2017 to 2019, *Eurosurveillance* strives to remain being an attractive, high quality, peer-reviewed outlet for contributors such as colleagues at ECDC, experts in the EU/EEA Member States and policy makers in the field of infectious disease in Europe, by facilitating sharing of timely information and data for public health action. In order to support this goal, *Eurosurveillance* will publish articles regularly with the help of a modern publication platform and workflows that ease the publication process, storing and retrieval of the scientific documents and where appropriate, data sets.

Eurosurveillance aspires to retain the journal's position among the leading journals in its field, and to be internationally recognised as credible and highly reputable open-access source of information on prevention and control of communicable diseases. In order to support this we will contribute to broaden the scientific evidence-base of epidemiology, surveillance, prevention and control of infectious diseases. We will support evidence-based public health through aiming at publishing methodological and conceptual papers in this field to contribute to build capacity. Moreover, we should encourage the submission of scientific papers that present results generated through evidence-based methods. Furthermore, we will follow developments and engage, where appropriate, in activities relating to publication ethics and research integrity and promote them among colleagues, contributors and our audience.

Eurosurveillance will undertake a number of initiatives to disseminate the journal's content widely and proactively, and to engage with its audiences: *Eurosurveillance* will expand its presence on social media beyond Twitter, be present at conferences and organise a scientific seminar on the margins of an international conference. *Eurosurveillance* will also intensify its contribution towards building capacity in Europe within ECDC's mandate. To support this, editors will engage in trainings around the generation of scientific publications/articles. Moreover, we will set up a series of scholarly scientific and methodology articles to complement respective ECDC activities.

For all our activities the editorial team should use its well established networks among experts in Europe and beyond. In parallel we should tap into the existing scientific networks of ECDC.

II.2.6 Disease Programmes

In this multiannual part of the document we elaborated on cross-cutting objectives of Disease Programmes. By the end of 2019 the following objectives should have been achieved:

1. *Consolidation of the disease networks (concerns all Disease Programmes). [Strategic area 5 – see p.9]*

The present external Disease Networks have originally started pre-ECDC as surveillance networks, often including a more or less strong laboratory component, depending on the nature of the disease. As progress in infectious disease control depends on effective prevention and control programmes based on sound surveillance data, a need emerged to provide a scientific and technical support to the European Commission and the EU Member States to inform the design and effective running of such programmes. On the one hand the economic crisis is forcing MS to downsize their investment in disease prevention, but on the other hand there is a clear need to expand Networks' functions beyond surveillance. Even if not all Member States can contribute to such expansion, ECDC will aim to create working groups or task forces within the Networks to discuss best practices and share successful initiatives in the area of "prevention and control" already applied in some MS. This development will be outlined in the new version of the ECDC strategic paper on disease networks to enhance the consistency between the networks, make clearer their goals and focus on the cost-efficiency of their work. The paper will be brought for consultation to the ECDC Advisory Forum and its implementation will be coordinated by the Disease Programme Section of ECDC. In 2017 evaluation of two Disease Programmes will be started, following a common protocol designed for the evaluation of all ECDC disease programmes.

2. *Support provided to the European Commission and Member States to better prevent and control antimicrobial resistance (AMR) and healthcare-associated infections (HAIs) (concerns ARHAI programme) [Strategic area 1, 2 – see p.9]*

The results of the ECDC point prevalence surveys of HAIs, including AMR, and antimicrobial use will be available, through the Coordinating Competent Bodies, for European acute care hospitals and in European long-term care facilities. In addition, the methodology for calculating the burden of AMR for HAIs and for other communicable diseases will have been completed. This will allow ECDC to produce a comprehensive report on the burden of AMR for the EU/EEA that will cover HAIs. It will also allow ECDC to produce revised estimates of the burden of HAIs based on the latest data from Member States.

Data on structure and process indicators for infections prevention and control and antimicrobial stewardship will be available for European acute care hospitals, as part of the ECDC point prevalence survey. This combined with the introduction of an operational unique identifier for hospitals in the three ARHAI networks EARS-Net, ESAC-Net and HAI-Net, should allow for a first integrated analysis of these networks and allow hospitals in EU/EEA Member States to make better use of surveillance data, in particular to identify structures and processes that could be improved to better prevent and control HAIs and AMR.

ECDC will have made contributions to the implementation of various Commission activities, to the implementation of WHO activities under the Global Action Plan on AMR, and to bilateral and international collaborations such as the Transatlantic Task Force on Antimicrobial Resistance (TATFAR), the Global Health Security Agenda (GHSA) and the Northern Dimension Partnership on Public Health and Social Well-being (NDPHS), thus contributing to the success of these initiatives. Finally, in accordance with the ECDC molecular surveillance roadmap, molecular typing data should be integrated as part of surveillance data for at least carbapenemase-producing *Enterobacteriaceae* (CPE). The choice of CPE is guided by the fact these multidrug-resistant bacteria are increasingly spreading in Europe and the combination of epidemiological and molecular typing data as part of surveillance should provide integrated information on, e.g., common pathways for their spread and suggest targeted actions for their prevention and control in Europe.

3. Support provided to the European Commission and Member States to improve vaccination coverage and address vaccination hesitancy (concerns VPD, IRV, HSH programmes). [Strategic area 1, 2 – see p.9]

A horizontal theme across a number of disease programmes is vaccination hesitancy and insufficient vaccination coverage. It primarily involves Vaccine Preventable Disease Programme (VPD), but also the Influenza and other Respiratory Viruses Programme (IRV) and other programmes (HIV, Sexually Transmitted Infections and viral Hepatitis (HSH) e.g. as it also impacts hepatitis B vaccination). Vaccine hesitancy is defined as “a behaviour, influenced by a number of factors including issues of confidence (level of trust in vaccine or provider), complacency (no perceived need for a vaccine, no recognition of the value of the vaccine), and convenience (access)²”. Vaccination is an important area of policy attention of the European Commission where ECDC has been providing and is ready to provide technical support. ECDC will not only continue to produce the scientific data and communication tools and toolkits to address vaccination scepticism, but also contribute to strengthening vaccination coverage monitoring. Mathematical modelling studies may be used in the coming years to estimate the impact of decreasing vaccination coverage in the EU. In support of the European Commission, ECDC will also continue monitoring seasonal influenza vaccine coverage in risk groups according to the targets set in the 2009 European Council recommendations for seasonal influenza vaccination.

4. Support provided to the European Commission and Member States to strengthen immunisation programs in EU (concerns VPD programme). [Strategic area 1, 2 – see p.9]

ECDC will continue to strengthen vaccination impact monitoring in the EU/EEA and will continue building and piloting alternative systems for surveillance of certain diseases, with special focus on sentinel surveillance structures. Examples include sentinel surveillance of invasive pneumococcal disease, pertussis and influenza to measure vaccination impact and effectiveness.

ECDC will further develop and establish systems for MS and the EU/EEA as a whole to collect and assess evidence basis for policy-making. This will include developing platforms for exchange of evidence-basis for policy making. For example the VPD programme will be working with MS, the European Commission and WHO Europe, to establish a platform for jointly coordinating the performance of literature reviews aimed to feed into national vaccination programme guidelines and policies. Such activities will be developed in close alignment with the future vaccination policy of the Commission.

5. Support provided to the European Commission for the monitoring and implementation of the planned EU policy document on HIV, TB and viral hepatitis (concerns HSH and TB programme). [Strategic area 1, 2 – see p.9]

The decision to develop a joint policy document for HIV, TB and viral hepatitis has not been confirmed by the European Commission yet, but ECDC should anticipate supporting the European Commission and Member States in the implementation and monitoring of such a policy document. ECDC will need to provide support to the European Commission for the monitoring and provide technical and scientific support to the Member States to implement the policies. As the policy document is planned to cover several diseases it will need coordination across the ECDC Disease Programmes (HSH and TB). Since the priorities and strategies of the policy document are not known, it will need to be kept open regarding the specific activities for 2017 and beyond to be planned for by ECDC. Apart from this, a number of global initiatives (e.g. WHO Global Health Strategies on HIV, STI and hepatitis, UNAIDS Global Strategy on HIV/AIDS, etc.) and regional action plans (WHO European regional Action Plans on HIV, STIs and hepatitis) will all create a new burdens on the Member States to reporting progress in achieving the objectives and will benefit from ECDC support to mitigate this additional workload.

² Larson HJ, Jarrett C, Eckersberger E, Smith D, Paterson P. Understanding vaccine hesitancy around vaccines and vaccination from a global perspective: A systematic review of published literature, 2007–2012. *Vaccine* 2014, 32: 2150-2159

6. Strengthened surveillance of influenza, and reviewing pandemic preparedness in EU MS (concerns IRV programme) [Strategic area 2– see p.9]

The evaluations of the response to the 2009 pandemic highlighted the need to develop severity assessment mechanisms for pandemic and seasonal influenza. WHO is piloting a mechanism for having a global and regional capacity for such assessments. Strengthening surveillance of severe disease and influenza-related mortality are the most robust ways of doing this. Scoping the target group and needs of an EPIS for respiratory viruses with possible inclusion of clinical networks is a way of strengthening early detection of emerging respiratory outbreaks.

ECDC and WHO Regional Office for Europe have jointly with EU MS assessed the lessons learned following the influenza pandemic in regional workshops in 2010. Since 2010, about a third of the EU MS have updated their pandemic preparedness plans based on the lessons learned. With the adoption of the Decision 1082 on serious cross-border threats to health and the first experiences of the generic preparedness assessments, work to integrate the pandemic preparedness planning into the generic preparedness planning should be undertaken and EU MS pandemic preparedness plans shared and reviewed.

7. Developed further the relationships with relevant national, EU-level and international stakeholders for enhanced surveillance and response to multi-country clusters and outbreaks of food- and waterborne diseases and enhanced preparedness for emerging and vector-borne diseases (concerns FWD and EVD programmes). [Strategic area 2, 4 – see p.9]

The joint ECDC-EFSA molecular typing database will be established and operational leading to increased detection of mixed multi-country microbiological clusters and outbreaks. This demands well-functioning collaboration across sectors to improve epidemiological investigations at national and EU-level, leading to timely implementation of targeted prevention and control measures. The standard operating procedures for multi-country and EU-level response to food- and waterborne clusters and outbreaks will be consolidated. For Legionnaires' disease, the surveillance of travel-associated cases is broadened to additional non-EU countries with high tourism from Europe.

The next generation sequencing technology is developing fast and is likely to be established in increasing number of countries by 2020. Based on the evaluation of molecular typing-based surveillance in 2015, listeriosis will be piloted so that by 2020, the EU-surveillance should be able to fully utilize the molecular characterization of *Listeria monocytogenes* with whole genome sequencing and the capability would be available in at least 15 Member States for public health purposes, assuming that this technology has become cost efficient and showed the added public health value in the EU/EEA.

The monitoring of antimicrobial resistance in human Salmonella and Campylobacter isolates has been revised in 2013-2015. The quantitative isolate-based reporting was introduced and the use of EUCAST methods will be promoted. By 2020, we expect to have 20 Member States with the capacity and capability to report isolate-based quantitative resistance data to TESSy. This will improve the comparability of antimicrobial resistance data across public health and food safety/veterinary sector resulting in better quality of joint EFSA-ECDC European Summary reports on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals, and food.

The current trend for variant Creutzfeldt-Jakob disease (vCJD) indicates that this form of CJD is decreasing. However, the sporadic form of CJD (sCJD) is increasing and the scientific research indicates potential links between scrapie and sCJD. In addition, the ban on the use of animal protein in feed has been lifted for certain animal species. This together with the long incubation period of the disease warrants to ensure the adequate preparedness for potential re-emergence in the Member States and to enhance the surveillance coverage of CJD to all forms.

For emerging and vector borne diseases, activities should lead to strengthen surveillance reporting with updates of relevant case definitions or implementation of different approaches for Lyme borreliosis surveillance, and preparedness to face unexpected infectious threats. They will include strengthening laboratory capacity in the EU for early detection of emerging pathogens, multi-disciplinary collaborations between agencies and different networks to better understand and assess the risks linked to emerging and vector-borne diseases in the region beyond the EU. Beside

human/animal and environmental surveillance implementation, activities will focus on validation of assessment tools with integrated analysis and geospatial infectious disease modelling for risk mapping, risk forecasting and orientation on control options.

ECDC will also support the Commission's priority to build up country-specific and cross-country knowledge which can inform policies at national and European level by providing surveillance data, data analysis including trends, and scientific advice on specific communicable disease indicators per request from the Commission as part of developing country profiles or contributing to the "Health at a Glance" reports.

II.2.7 Management

General Management

By 2019, an organisation-wide Management and Enterprise Architecture framework will be implemented [Strategic area 5 – see p.9]

In order to have a continuum and a greater coherence between ECDC's vision, strategy and day-to-day activities, it is necessary to adopt a strategic, integrated and structured approach for the whole organisation. The ultimate goal of this approach is the alignment of the ECDC strategy with operational excellence, align organisational behaviour to the strategy, increase the effective and efficient use of resources in the Centre and by that continuously improving ECDC's efficiency and performance. Key elements of this framework include the organisation's vision, the governance and monitoring models, the policies, planning and execution processes including skills, roles and responsibilities, information management and how IT as an enabler supports the organisation. With this coherent approach, dependencies between parts of the organisation can be identified and synergies can be developed.

Collaborations

1. *By 2019, ECDC has strengthened its capacity and role as an EU technical reference point on issues related to communicable diseases for international and multinational organisations as well as public health players involved in public and global health. [Strategic area 4 – see p.9]*

ECDC will continue during the years to come to coordinate its international activities with the European Commission (e.g. DG SANTE, DG ECHO, DG NEAR and DG RTD) as well as other services e.g. EEAS, Executive Agency. Based on its technical mandate as well as the lessons learned from the ECDC support to Ebola response in West Africa ECDC will strengthen the support EU response in humanitarian crises through existing European Commission structures as well as possible new initiatives, such as EU European Medical Corps initiative.

As regards ECDC work with the WHO European Regional Office (WHO Euro) the coordination of technical work will continue with coordination meetings taking place twice a year. The ECDC MB will be informed about the joint work plans and they may be published on both websites. In the coming years the collaboration will be intensified in two areas, namely preparedness/IHR core capacities and work with the EU enlargement countries. In both of these areas strengthened collaboration will benefit the countries concerned.

2. *By 2019, ECDC will have intensified its collaboration with other EU agencies and bodies [Strategic area 4 – see p.9]*

The existing collaboration agreements with EMA, EFSA and EMCDDA will be more closely followed up. A more strategic liaison will be done by annual meetings at Director level and further areas for increased synergies will be explored.

Furthermore, ECDC will investigate the potential of intensifying the collaboration with those agencies where so far contacts were limited to a few special occasions (e.g. EEA, FRONTEX, FRA).

Independence Policy

By established electronic support tools and ongoing training ECDC have assured a solid implementation of the regularly updated Independence Policy. [Strategic area 5 – see p.9]

The Independence Policy which was put in place in 2013 has been revised in 2016. The revision addressed a number of issues that needed clarification in order to allow a decentralised implementation of the policy over the different units and activities of ECDC. One system of electronic submission of declarations of interest will be key to reducing the amount of errors made, will facilitate the publication of the submitted DoI's and will enable faster and more rigorous checks for conflicts of interests as well as checks for veracity. Experience from other agencies shows that an Independence Policy needs constant adjustment and refinement, which is foreseen in the flexibility of the electronic submission system and the establishment of repeated training of those applying the policy in practise.

Resource Management Unit

By the end of 2019 the following objectives should have been achieved:

1. *ECDC position is maintained in the upper quartile of the benchmark for EU Agencies [Strategic area 5 – see p.9]*

ECDC will continue to maintain the high level of confidence and reliability of its accounts and of the underlying transactions. It will also strengthen its contribution to external networks of agencies and collaborate with EU institutions in order to exchange on best practices. It includes cooperation at EU level in the areas of procurement, legal, finance and accounting, human resources, performance and quality management and knowledge sharing.

2. *ECDC's premises are fully operational and optimally support ECDC's mission [Strategic area 6 – see p.9]*

ECDC new premises objective will be to make the Centre as efficient and effective as it can possibly be. It means essentially using modern operational excellence approaches and user-friendly IT solutions. All areas of resource management will be scrutinised for potential simplification, efficiency gains and added value to EU priorities. It will shape the way the Centre plans and works on a day to day basis; for example, moving towards e-administration and full electronic document and records management will help automate administrative tasks improve our internal routines and clarify areas of responsibilities for all actors; it will certainly impact our culture and increase ECDC contribution in terms of corporate and social responsibility.

3. *All areas of resource management are cost-conscious [Strategic area 5 – see p.9]*

The Unit will continue to contribute to a more robust work planning exercise with the support of the activity based management approach in ECDC. This will provide support to the implementation of ECDC single programming and the efficient and effective use of both human and financial resources. It means built in quality controls, better preparation, stricter priority and benefit realisation setting, monitoring and management during both the planning and execution phases as well as seamless and well-known processes across the Centre. Realistic estimates of the capacity to execute and deliver complex projects are needed to ensure that the initial investments allow ECDC to fulfil its mandate.

4. *Staff skills and competences development is continuously aligned with ECDC strategic priorities [Strategic area 5, 6 – see p.9]*

There will be a continuous attention on ECDC needs to develop relevant competences. The Centre will therefore further strengthen its ability to adapt to evolving EU challenges and priorities. This will allow the Centre to better support and complement the European Commission and the member states. Resources are used on the most relevant activities to add more value to ECDC. Ultimately ECDC will make the most effective use of and share its specific knowledge, staff skills and have its resources assigned on the most value added activities while remaining an attractive place to work.

Information and Communication Technologies (ICT)

The main goal of Information and Communication Technologies, mainly represented by the ICT-Unit, is to enable the Centre in its mission. The ICT-Unit delivers studies and tools, develops core business applications and maintains highly available infrastructures for the benefit of ECDC's stakeholders and end users. The Unit advises and supports the Centre on ICT best practices, methodologies and

governance in order to deliver effective and soundly managed services and products. It ensures ICT business continuity, disaster recovery and support to users of systems and services according to needs, and also provides specific services in times of public health event.

1. *ICT has contributed to the existence of an upgradable and sustainable architecture framework. [Strategic area 5 – see p.9]*

The collaboration in the center on enterprise architecture topics is contributed to by ICT, concerted with business and information enterprise architects, and subject to SMT strategic decision. The objective is that the architecture framework selected and developed in the Center aligns to EU policies and standards in the field of Public Health Informatics on the scope of communicable diseases, ensuring that systems are built meeting functional suitability, interoperability, scalability, maintainability, portability, data collection, query and sharing requirements, at the best cost.

2. *ECDC ICT has implemented Continuous Improvement Culture [Strategic area 5 – see p.9]*

After having started to introduce an a new ICT general governance in 2013, Process maturity and Continuous Quality Improvement in 2013-2014, and Enterprise Architecture in 2015, evaluations and audits from different sources request improvements that need to be implemented in a continuous mode, with primary goal of meeting ECDC's expectations. Objective is the yearly performance of Continuous Improvement plans.

3. *Technology Watch [Strategic area 5 – see p.9]*

In an environment moving increasingly fast and broad on ICT trends and new opportunities, the necessary technology watch function is defined, organized and implemented in the Center, in support to ECDC's core functions.

3. Human and financial resource- outlook 2017 – 2019

3.1. Overview of the past and current situation

Staff population overview 2015

See in Annex III - table 1

Expenditure for N-1

See Annex II: Table 1: Expenditure (page iii)

Categorisation of staff (2015) according to the common benchmarking methodology

In accordance with the common methodology for all EU agencies' job screening (reflecting the rules set in the Financial Regulation), the Centre's operational staff makes up 75.2 % of the total staff. The overview given in the SPD for 2017 should be complemented with the results of the benchmarking exercise, which categorises functions according to agreed standards, e.g.:

- The External Communication function is considered to be a coordination role in accordance with the above mentioned methodology as long as it is not directly implementing the mandate of the agency. However, the Centre's communication activities and communication support to Member States form part of the Centre's mission and therefore need to be largely considered as operational

activities.

- The operation of large data collection and management systems (such as TESSy, EWRS), requires a considerable IT contribution, which therefore also need to be considered operational.
- Part of the resource management activities is considered operational in line with the above mentioned methodology, e.g. operational procurement. Similarly, direct administrative support should inherit the categorisation of the work area, i.e. administrative support to operations is to be considered operational.
- Jobs in the area of Finance, non-operational procurement and quality management are to be considered neutral under the methodology.

Job type (sub) category	Year N (%)
Administrative support and coordination	16.9%
Administrative support	16.5%
Coordination	0.4%
Operational	75.2%
Top-level operational coordination	2.3%
Programme management & implementation	61.6%
Evaluation & impact assessment	0.0%
General operational	11.2%
Neutral	7.9%
Finance/control	7.9%
Linguistics	0.0%

3.2. Resource programming 2017-2019

3.2.1. Financial resources

Justification

- **Revenue:** detailed data provided in Table 2 in Annex II
- **Expenditure:** (detailed data provided in Table 1 in Annex II)

Title 1:

The budget 2017 is forecasted to accommodate the salaries and salary related costs of the implemented establishment plan and the Centre's contract staff. The reductions of four posts are taken into account in the forecast for 2017 (two AD and 2 AST) and finally the reduction of two posts in 2018 (see 3.2.2.E below). The significant decrease in Title 1, compared to 2016, accommodates the future building project of the Centre, which will have a significant impact on the budget in 2017/ 2018. The majority of the decrease will occur in budget line 1190 Weightings applied to remunerations, whilst the impact on this budget line remains an unknown and unpredictable macro-economic part of the ECDC's budget planning and its execution. This is due to the fact that the correction coefficient applied to the salaries in Sweden, is driven, to a large extent, by the fluctuations of the Swedish krona.

Title 2:

The significant increase in this title, foreseen in the budget for 2017 and 2018, is due to the fact that ECDC plans to move to new premises in early 2018. Therefore, the budget in 2017 and 2018 is increased in the following chapters, with the justifications below:

- **Chapter 20 Rental of buildings and associated costs:**

An increase is proposed for 2018 by 1.400.000 € to cover for an increased rent, duplicated services for several months while moving and for additional investments. From 2019 onwards, chapter 20 will permanently remain increased to cover the elevated rent following the new rent contract in place.

- **Chapter 21 Information and communication technology:**

ECDC is aiming to relocate to new premises early 2018 and therefore the equipment turnover lifecycle of many ICT Backend infrastructure systems, has been aligned and prolonged to be exchanged by the end of 2017, early 2018. This will lead to an investment peak of ICT infrastructure and related services for the new building estimated at 1.695.000€ in 2017. At the same time ECDC will no longer invest in the current premises, thus the relative increase for hardware and other equipment in 2017 will be approx. 1 million € compared to 2016.

- **Chapter 22 Movable property and associated costs**

In 2017, an amount of 964.000€ is foreseen out of the 1.013.000€, due to the need to purchase new furniture.

- **Chapter 23 Current administrative expenditure:**

This chapter should be increased by 145.000 € in 2018 due to additional costs related to the removal.

Title 3:

The amount of Title 3, operational budget for 2017, is provided in Annex 2 – table 1 and has been increased by 704 000 € from Title 2 to 18 986 000 €, compared to the draft 2017, as this software will be used for operational purposes in Title 3.

The amount of Title 3 for 2018 will be 18 282 000 €.

In 2019, there will be a significant increase of the operational (Title 3) budget, forecasted to reach 20 151 000 €. This increase originates in the heightened EU contribution for ECDC, as determined by the Commission Communication COM(2013)519 on human and financial resources for decentralised agencies 2014-2020.

Title 3 will be used to implement ECDC work programme activities through external procurements, grants and meetings. The detail of the expected outputs is given in part III. of the present document.

Budget Outturn and cancellation of appropriations

Information provided in Table 3 with short descriptive information and justification.

See Annex table 3

3.2.2 Human resources

Overview of the situation over the years 2017-2019

A) New tasks

The Centre has not been entrusted with any new tasks requiring the extension of the agency

mandate.

B) Growth of existing tasks

A number of tasks have been added and more are expected to be added within ECDC's current mandate in the implementation of Decision No 1082/2013/EU of the European Parliament and of the Council on serious cross-border threats to health. Also the recent year's discussions on ECDC's support to unusual outbreaks may lead to an increased work load.

C) Efficiency gains

ECDC continues its efforts towards further efficiency gains. Some examples are the reduced number of staff missions, increased video conferences, process improvement initiatives in procurement and finance areas which has allowed ECDC to use the resources more efficiently and on value added activities. ECDC has also started the implementation of a paperless approach called e-Administration and a common project management methodology which will allow the Centre to further optimize the use of its resources. A new premises project is ongoing which aims to achieve significant efficiency gains by focusing on improving interactions between departments and external stakeholders. Furthermore, ECDC has implemented a global Quality Management approach based on the Common Assessment Framework methodology. Finally, the implementation of Activity Based Budgeting allows the Centre to better measure the achieved savings and benefits.

D) Negative priorities/Decrease of existing tasks

In the Centre's Strategic Multi-Annual Plan 2014-2020 it is stated that following the foreseen post cuts, the portfolio of activities needs to be reduced. One of the areas in which the Centre should narrow its focus is communication and it has been put forward that the Centre leaves the direct communication to European citizens to the Member States. Other functions are considered to be core to ECDC including the Disease Programmes, ECDC will thus apply a proportional reduction to these activities as well as in the administrative area.

E) Redeployment of resources in view of budgetary constraints

While the Centre acknowledges the request by the European Commission and the budgetary authorities of 5% staff cuts (on head counts) over 5 years and the additional request for 5% staff reduction for the agency re-deployment pool, the work load of the Centre has actually increased (not the least in view of Decision 1082/2013) and the Centre's staff surveys show that staff feel overwhelmed by their work load. The Centre started the implementation of the post reduction by cutting two posts in the establishment plan of 2013 (1 AD, 1 AST), four posts in the establishment table of 2014 (2 AD and 2 AST), four posts in the establishment table of 2015 (2 AD and 2 AST) and four posts in the establishment plan 2016 (2 AD and 2 AST). With another four posts reduction by 1 January 2017 and finally two posts reduced by 1 January 2018 the Centre has complied with the required staff reduction as requested by the European Commission in its Communication 2014-2020.

Since the Centre has a relatively young work force, it is difficult to plan for reduction considering retirement.

The Centre considers two methods for reducing posts in the establishment. The first method is to review all upcoming vacancies and refrain from filling some of them. The Centre has a turnover of approximately 6-8% per year and certain vacancies arising from this might be considered possible to cut. Should a cut of 4 posts per year not be achievable using this method, the Centre will, as always,

consider if a post is required when the renewal of a contract comes up. Most TA contracts in place as of 31 December 2015 will be up for renewal in the next five years, only 10 temporary agents have indefinite contracts at this moment. Of the contract agents in place 15 currently have an indefinite contract.

To ensure continuity of business critical activities the Centre decided to cut posts in functions that can be distributed among other staff with the same expertise, also keeping in mind the increase of weekly working hours. Should this not be possible the Centre will set priorities in its work plan and reduce some activities. The Centre will make a decision on cutting activities as and when required. Additional outsourcing may be considered as one possibility (although contradictory to the recommendations of the External Evaluation).

Conclusion on evolution of resources compared to the European Commission Communication 2014-2020

The Centre concludes that although there has been a growth in the existing tasks of the Centre, yet the required staff reduction has been achieved. It needs to be reiterated though that this is only possible if the necessary negative priorities are set. Otherwise, there is a risk of increased stress levels among staff

III Work programming 2017 Priorities

1. Executive summary

The work programme 2017 will reflect both ECDC priorities as set in its SMAP 2014-2020, and the cross cutting priorities of the Centre for the next three years (see page 8): further strengthen the scientific excellence and maintain the independence of ECDC; optimise the usefulness of ECDC's outputs for our external stakeholders; support the European Commission and Member States in strengthening EU-wide preparedness and capacity-building; focus on further development of relationships with relevant stakeholders; further enhance the efficiency of ECDC; and ensure ECDC as an attractive place to work.

1. Surveillance and epidemic intelligence

In 2017, ECDC will reinforce its technical surveillance platforms and process, particularly by completing its Surveillance Systems Reengineering project. ECDC will also support Member States eager to automate the transfer of their surveillance data. For epidemic intelligence, ECDC will continue to provide rapid risk assessments to the Member States and the Commission and develop new tools for rapid investigation and analysis of multi-country outbreaks.

2. Scientific support

ECDC will improve its prioritisation tool and repository for scientific advice. It will further improve the quality of the scientific outputs delivered. The ESCAIDE conference will be organised. ECDC engagement with EU funders and on-going research projects will be further investigated. Training on evidence-based practice and decision making will be organised. On microbiology, ECDC will continue supporting and monitor the coordination of essential microbiology in Member States for surveillance, prevention and control of infectious diseases (EuLabCap project). Pilot studies will be performed as part of the molecular typing strategic roadmap.

3. Preparedness and response

ECDC will continue to support the Commission and the Member States in monitoring the implementation of Decision 1082/2013/EU in the area of preparedness, and support countries preparedness through technical guidance, simulation exercises, tools, and technical support to the Health Security Committee. ECDC Emergency Operation Centre will be further strengthened, the Public Health Event plan updated and mobilisation mechanisms for public health response teams further developed.

4. Training and capacity building (incl. international relations)

The EPIET and EUPHEM fellowships will be merged into one single framework. The structure of the Continuous Professional Development Programme (CPDP) will be finalised. Additional E-learning courses will be available. Coordinated country support activities will be developed, after the definition with Member States of methodologies, including a priority setting mechanism. The new approach will be piloted with few countries. In terms of international relations, ECDC will produce a progress report on the participation of enlargement countries in the field of communicable diseases, conduct the assessment of one enlargement country, continue working with neighbourhood countries and further enhance its cooperation with WHO.

5. Communication

ECDC will continue to publish timely scientific and technical content to its target audiences, through the appropriate communication channels. Technical support will be provided to health communication campaigns, such as the Antibiotic Awareness Day. The visibility of Eurosurveillance will be increased and its website will be optimised with a new design and functionalities.

6. Disease programmes

ARHAI

ECDC will further develop key outputs on antimicrobial resistance and healthcare associated infections. The data from the surveillance networks will be available on the ECDC Atlas, and the role of ECDC as a hub of harmonised European surveillance systems for AMR and HAI, including molecular surveillance will be further consolidated. ECDC will support the Commission and Member States with dedicated initiatives to prevent and control AMR and HAI. ECDC will continue contributing in international initiatives. And more synergies will be developed with the veterinary sector, as part of the 'One health' approach.

EVD

ECDC will continue to strengthen surveillance and standardise the reporting of vector borne diseases, to support Member States efforts, including through vector maps. An early system to detect outbreaks will be developed.

FWD

ECDC will continue to ensuring surveillance, productions of reports, external quality assessments for laboratory services, a discussion paper on potential revision of human TSE surveillance, and the organisation of network meetings. International collaboration will be strengthened.

HSH

ECDC will continue to provide more evidence for to Member States and the Commission, through guidance and technical reports on HIV, hepatitis B and C, STI, pre-exposure prophylaxis. Member States will be supported through country visits. Reports will include a more detailed analysis of molecular data. Monitoring of the EU response to HIV and possibly hepatitis.

IRV

ECDC will continue to provide influenza surveillance outputs and produce weekly surveillance reports during the season, timely rapid risk assessments and scientific advice in the area of respiratory pathogens. Timely vaccine effectiveness estimates and vaccine coverage will be made available to stakeholders.

VPD

ECDC will develop with its partners and stakeholders and in close alignment with the future vaccination policy of the European Commission, a structure to support Member States in sharing evidence basis for vaccine programmes as well as a structure to monitor the impact and effectiveness of priority vaccines.

TB

ECDC will strengthen TB surveillance at national and EU level to reach adequate coverage and completeness, strengthen TB laboratory services for management of TB, TB prevention and care especially in high burden Member States. ECDC will continue to provide scientific advice on TB prevention and control in the EU and technical support to the Commission for the development of an EU policy document.

7. Management

General Management

All recommendations of the second external evaluation will be implemented and progress reports will be communicated to the management Board. Processes will be further simplified, with clear roles and responsibilities; an organisation-wide EA framework will be agreed upon.

Collaboration and cooperation

ECDC will continue to ensure continuous and smooth relationships with the European Commission, the EU Parliament and other EU agencies. Relationships will be further consolidated with the Member States through the Competent Bodies and our host country, Sweden.

Resource management

Resource management at ECDC will ensure effective support of the smooth operation of ECDC main missions, the use of all resources of the centre in the most effective and efficient ways, ensure compliance with the EU and the Agency's legal obligations and regulations, consolidate the automation of processes, and ensure compliance with legal obligations.

ICT

All IT applications and infrastructures will be maintained, hosted and secured. New systems will be developed to support the Work Programme commitments. The continuous improvement plan for 2017 will be implemented and a Technology Trend Watch function will be defined.

1. Surveillance and epidemic intelligence

1.1. Surveillance

Context

Surveillance is one of the basic tools for preventing and controlling infectious diseases. Good quality, consistent and comparable surveillance data enable public health professionals to monitor the spread of these diseases and assess the effectiveness of interventions to prevent them. Supporting EU-level surveillance is one of the core tasks given to ECDC in its Founding Regulation, and this is reiterated in Decision 1082/2013/EU on serious cross-border health threats.

ECDC's overarching priorities in relation to surveillance under its SMAP 2014-2020 are to add more value to the data it gathers by making them available in new, user-friendly formats; to decrease the administrative burden on data providers in the Member States; and to take advantage of the possibilities offered by molecular technologies: in particular in the field of molecular surveillance. In 2017, ECDC is progressing new initiatives in all these areas while continuing to collect and analyse data on all the diseases and public health issues under EU-level surveillance. The analysis and interpretation of data will be further detailed, when allowed by the quality and exhaustiveness of the data available.

Event-based and indicator-based surveillance data will be collected in a more systematic and complementary way. This will bring surveillance and epidemic intelligence closer together. We will also continue to provide technical input to possible future updates or revisions of EU case definitions by the European Commission, and to develop EU standards for surveillance of selected pathogens.

Objectives 2017

The key objectives of ECDC's surveillance activities are:

1. Develop the optimisation of technical surveillance platforms and processes identified as part of the 'Surveillance Systems Reengineering' (SSR) project in 2015 and 2016 (*strategic area 5*³).
2. Develop a protocol for epidemiological EU/EEA-level surveillance system evaluation and apply it to a first batch of enhanced disease surveillance systems (*strategic areas 2 and 5*).
3. Use the EU/EEA surveillance system evaluations to define EU/EEA and national minimum surveillance standards and their monitoring indicators (*strategic area 3*);
4. Publish in-depth surveillance data analyses which are not included in routine surveillance reports, in peer-reviewed scientific journals (*strategic areas 1 and 2*);
5. Support the European Commission in revising and updating EU case definitions through implementing acts under decision 1082/2013/EU (*strategic area 3*);
6. Consolidate and further develop molecular surveillance at EU/EEA level in accordance with the revised "ECDC strategy and roadmap for integration of molecular typing into European level surveillance and epidemic preparedness" (AF32/NMFP10) (*strategic areas 1, 2 and 3*);

Key Outputs 2017

1. Improved technical surveillance platforms and processes;
2. Protocol for epidemiological EU/EEA-level surveillance system evaluation and first batch of evaluation reports;
3. EU/EEA surveillance standards and monitoring indicators for surveillance systems evaluated in 2017;
4. Peer-reviewed scientific articles analysing surveillance data in depth;
5. Technical support to Member States that wish to establish automated transfer of surveillance data to ECDC;

Expected results / outcome

- The EU/EEA surveillance platforms and processes will be technically state-of-the-art and efficient.
- A first subset of disease surveillance systems will be epidemiologically evaluated by independent evaluators and minimum surveillance standards and monitoring indicators will be in place.
- Peer-reviewed articles in scientific journals will help to deepen EU/EEA surveillance data analysis and interpretation and to more widely and effectively disseminate the findings.
- The European Commission will be supported with new or updated case definitions and Member States will be offered options for automated data transfer, as required.
- Finally, molecular surveillance will continue to enrich more traditional indicator-based and event-based surveillance wherever this is found to add European value.

Indicators

³ See six strategic areas in chapter II.1 p 9

Nb.	Objective	Indicator	Target 2017	Verification
1	Complete the optimisation of technical surveillance platforms and processes identified as part of the SSR project in 2015 and 2016. [ref. Objective 2017 - 1]	Degree of implementation of the roadmap (developed in 2016) for upgrading the surveillance informatics tools.	Roadmap priority actions have been fully implemented and ready for being tested with surveillance stakeholders.	Monitoring of SSR roadmap milestones. Feedback collected from users on reengineered surveillance tools during the testing phase.
2	Develop a protocol for epidemiological EU/EEA-level surveillance system evaluation and apply it to a first batch of enhanced disease surveillance systems. [ref. Objective 2017 - 2]	Number of enhanced EU/EEA surveillance systems evaluated and quality of the protocols and evaluation reports	Protocol and evaluation reports received on time and meeting predefined quality criteria for HIV/AIDS, antimicrobial resistance and healthcare-associated infections.	Monitoring of milestones and quality indicators as reported in the evaluation reports.
3	Publish in-depth surveillance data analyses in peer-reviewed scientific journals. [ref. Objective 2017 - 4]	Manuscripts accepted for publication in peer-reviewed scientific journals.	At least five manuscripts accepted for publication in peer-reviewed scientific journals.	Acceptance letters from journals received by first authors.
4	Consolidate and further develop molecular surveillance at EU/EEA level. [ref. Objective 2017 - 6]	Completion of milestones as per revised molecular surveillance roadmap.	All milestones completed as per roadmap.	Monitoring of milestones against roadmap as reported to AF.

1.2 Epidemic intelligence

Context

Monitoring and assessing threats to public health in Europe from infectious diseases are core tasks for ECDC, as is providing technical support to the EU-level response to such threats. The European Commission and Member States have come to rely on the Centre's rapid risk assessments and technical support when faced with serious multi-country infectious disease threats. This has been seen during numerous outbreaks in recent years, most recently with the Middle East Respiratory Syndrome Coronavirus (MERS CoV) in 2012-2015, the outbreaks of human cases of avian influenza A (H7N9) in China since 2013 and the large outbreak of Ebola virus disease in West Africa in 2014-2015.

ECDC's partners in the European Commission and Member States rely on its epidemic intelligence and response support activities. These are core services that the Centre has been providing since it became operational: many of the activities and outputs planned for 2017 can therefore be seen as continuation of services provided in previous years. Nonetheless, ECDC expects the EU level cooperation against multi-country infectious disease outbreaks to further intensify over the coming years as a result of Decision 1082/2013/EU. ECDC will hence be developing a range of new tools to support more rapid investigation and analysis of multi-country outbreaks. These will include among others: 1) an online outbreak investigation questionnaire tool that can simultaneously create a questionnaire in several languages and enable joint analysis of the results gathered, 2) a tool to enable rapid creation and real time updating of line listings / epidemic curves for multi-country outbreaks and 3) a new GIS tool for the investigation of community Legionnaires' disease outbreaks.

The threats of unknown origin will continue to be monitored and assessed whenever they represent a potential public health risk. Considering the diversity and the nature of those threats, they are addressed in cooperation with the EU and the international bodies with different fields and areas of expertise. While the origin of the threat remains unknown, ECDC will properly monitor the event with the available

sources of information including social media and when possible apply epidemiological methods to try to clarify its origin and potential public health impact. A suitable all hazards approach will be considered

Objectives 2017

The key objectives of ECDC's epidemic intelligence and response activities are:

1. Ensure timely and effective monitoring of potential threats from infectious diseases (*strategic area 1 and 2⁴*).
2. Align the rapid and effective support to the European Commission and Member States in addressing infectious disease threats of EU level significance with the implementation of Decision 1082/2013/EC (strategic area 3 and 4).
3. Provide Member States with updated support for the preparation of Risk Assessments (strategic area 2 and 4).
4. Further improve the support ECDC provides to the European Commission and Member States by a strong and reliable infrastructure and by continually improving processes (strategic area 2, 4 and 5).
5. Liaise with EU networks funded under the Health Programme involved in epidemic intelligence and response (strategic area 4 and 5).

Key Outputs 2017

1. Provision of reliable threat detection and assessment services to the European Commission and Member States
2. New tools to support rapid investigation and analysis of multi-country outbreaks and facilitate work of Member States and the European Commission finalised.

Expected results / outcome

- EU level cooperation for multi-country infectious disease outbreaks further intensified over the coming years
- Threats of unknown origin will continue to be monitored and assessed whenever they represent a potential public health risk.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
1	Provision of relevant, timely and quality rapid risk assessment to support the risk management carried out by the Member States and the European Commission [ref. Objective 2017 - 1]	<ul style="list-style-type: none"> - Number of timely rapid risk assessments - Proportion of rapid risk assessment assessed positively by Member States 	<ul style="list-style-type: none"> - 80% of rapid risk assessments produced within the set deadline for each RRA - 100% within 4 weeks - 80 % yearly satisfaction of respondents 	<ul style="list-style-type: none"> Timeliness: RRA statistics Source SARMS (internal database on external scientific advice requests) Quality: Ad hoc surveys

⁴ See six strategic areas in chapter II.1 p 9

2	Provision of relevant, and timely updates on threats to the Member States and the European Commission [ref. Objective 2017 - 1]	Provision of regular epidemiological updates for threats under specific monitoring Provision of weekly communicable disease threat reports Provision of support teams upon request from Member States	- Epidemiological updates provided - 52 weekly CDTR published in 2015 - 100% requests for response support from Member States honoured	CDTR, epidemiological updates available on ECDC website CDTR publications List of requests from Member States
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Total Resources surveillance and epidemic intelligence:

Total Fulltime Equivalents (FTEs) for this activity: **28.4**
 Total operational budget title 3: **1,135,446 EUR**

2. Scientific support

2.1 Scientific Advice

Context

The provision of independent high quality scientific advice is one of ECDC's core functions and is highly valued by our stakeholders. As a technical, publicly funded EU agency, ECDC is committed to scientific excellence and independence, and to transparency in its methods and processes.

ECDC plays a crucial role as a trustworthy evidence filter and independent information source in areas within its remit. Producing reliable evidence syntheses at EU level has the potential to save resources and avoid duplication of efforts.

ECDC will further enhance the consistency of its scientific advice outputs, improve analysis methods, and processes as part of an overarching scientific strategy. This will increase the Centre's ability to produce evidence-based advice that is scientifically sound, useful and timely.

Prioritising work in the right areas at the right time is challenging and can only be achieved through close exchange with stakeholders at EU and Member State level, using structured mechanisms to engage relevant stakeholders and make the decision-making process as transparent as possible. ECDC will continue to work closely with its established public health and disease networks to identify priority areas, and exchange expertise and information. On the EU level, ECDC will further strengthen its relationships with EU institutions, other EU agencies responsible for risk assessment (e.g. through the EU-ANSA network established in 2013), and will further contribute to EU networks such as SHIPSAN ACT, AIRSAN and EMERGE.

This collaborative and networking approach expands beyond the borders of the European Union, and includes international partners as well as research bodies working in the areas of infectious diseases epidemiology, prevention and control (e.g. Global Research Collaboration for Infectious Disease Preparedness). To be able to fulfil its core functions, ECDC needs to follow research and methodology developments on a global scale to ensure that its work stays relevant and scientifically sound. Continued mutual learning and capacity building in collaboration with stakeholders are essential means to keep scientifically and technically up-to-date.

Objectives 2017

The key objectives of ECDC's scientific advice activities are:

1. Identify priority areas for ECDC scientific advice with the potential to save resources at Member State level, and impact decision-making at EU and country level, (*ECDC strategic areas 2, 4, 5*);
2. Further strengthen engagement with partners and stakeholders at EU, Member State and international levels, (e.g. WHO), to identify knowledge gaps, maximise synergies and avoid duplication of efforts when producing scientific advice (*ECDC strategic areas 2, 4, 5*);
3. Further enhance the quality of the Centre's scientific work in terms of methodology, consistency and transparency and ensure that scientific advice produced by ECDC follows evidence-based principles (*ECDC strategic areas 1, 2*);
4. Further develop and implement user-friendly scientific advice processes including electronic workflows and tools to increase transparency and time efficiency (*ECDC strategic areas 1, 2, 5*);
5. Support knowledge exchange and networking, continued mutual learning and capacity building to maintain and further develop the knowledge, skills and competencies needed to produce high-quality evidence-based scientific advice (*ECDC strategic areas 1, 3, 4, 6*);
6. Strengthen ECDC engagement with EU-level research to ensure that the Centre benefits from the knowledge generated from EU funding; collate and prioritise research needs and knowledge gaps and pursue these actively with EU funders and EU research community and support ECDC involvement in public health research activities (*strategic areas 1, 2 & 5*)

Key Outputs 2017

1. Improved ECDC prioritisation mechanism (IRIS) for scientific advice;
2. Improved ECDC Scientific Advice Repository and Management System (SARMS) ;
3. High-quality scientific advice outputs published on ECDC's website and in peer-reviewed journals; further improved in relation to quality of scientific analysis and content, evidence-based approach, transparency of methods and processes, as well as consistency and utility of presentation ;
4. 2017 edition of the European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE 2017) to support knowledge exchange and networking, involving European Commission services like SANTE, CHAFEA and other EU agencies ;
5. Implemented framework contract for systematic reviews in the area of ECDC's remit depending on the result of the preparatory work done in 2016 ;
6. Training workshops in methods and tools for evidence-based practice and decision-making for ECDC staff and ECDC partners at EU and country level ;
7. A draft strategy paper on ECDC engagement with EU-funders and with on-going research projects to maximise mutual benefit to the research community and ECDC.

Expected results / outcome

- By the end of 2017, ECDC will have the processes and procedures in place to engage even more with the ECDC national focal points for scientific advice coordination and the ECDC Advisory Forum, as well as the Centre's established networks, stakeholders and the scientific community, and for a more structured, consistent and transparent process when it comes to assessing needs and knowledge gaps, setting priorities and developing high-quality scientific advice and other scientific outputs.

⁵ See six strategic areas in chapter II.1 p 9

- By the end of 2017, SARMS will be fully established and function as a searchable repository of ECDC's scientific work, support the transparent and efficient development of ECDC scientific outputs through electronic workflows, and provide a dashboard function that allows internal and external users to obtain an overview of ECDC scientific outputs under production
- High-quality scientific advice outputs that consolidate ECDC role as a trustworthy evidence-based and independent information source, in areas within its remit, that contributes to save resources and avoid duplication of efforts at a EU level

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
7	High level of support of the European Commission and Member States by producing quality scientific publications in the area of the priorities and mandate of the Centre [ref. Objective 2017 - 3]	Quality of ECDC scientific publications in peer-reviewed journals remains high i.e.: - Average Journal Impact Factor - Average number of citations of each article	IF > 3.8 > 10	Quality and citations base on the following databases: Scopus, PubMed and Embase
8	High level of timely and adequate response to requests for scientific opinions by providing authoritative and reliable scientific opinions and evidence-based guidance to Member States, European Commission and Parliament [ref. Objective 2017 - 1]	- Proportion of prioritised scientific topics executed. - Proportion of requested items for scientific advice (ad hoc and planned) timely delivered - Usefulness of opinions and evidence-based guidance produced by ECDC	80 % of prioritised actions integrated in annual work programme 80 % >70% of opinions and guidance used by ECDC stakeholders	- Comparison between IRIS (tool for scoring scientific priorities by the Advisory Forum) and the approved Work Programme - Source SARMS (internal database on external scientific advice requests) - ECDC website statistics and survey

2.2 Microbiology

Context

Every Member State should have access to routine and emergency diagnostic and reference laboratory services to detect, identify, characterise and subtype human pathogens of public health significance. This is dependent on maintaining the laboratory capability at clinical, national and supranational reference levels.

In a fast-moving field, rapid pathogen and drug resistance detection tools are now reaching the point-of-care diagnostic market. Whole genome analysis is transforming microbiological diagnostic and typing approaches and uncovering novel markers of virulence and drug resistance of public health relevance. Yet, there is a largely unmet need to critically assess their accuracy and public health usefulness. ECDC will develop guidance on these issues together with Member States experts and Disease Networks. In addition, national reference laboratories need external quality assessment schemes for microbiological technologies to ensure comparability of surveillance data.

The first strategic objective of the ECDC microbiology programme is to consolidate the capacity of the EU public health microbiology system, as based on evidence of functional capability and technical capacity levels identified by EULabCap indicators and EQA results. To strengthen capacity ECDC will support Member State access to improved technologies by organising technical guidance, training workshops, external quality assessment schemes as well as sharing specialised testing within European

networks of laboratories. The Microbiology Coordination Section will support the Disease Programmes by facilitating the sharing of best practice across disease networks and in 2017 will play an increasingly important role in ensuring EU-added value of microbiology support activities such as cost-effective management of external quality assessment schemes and guiding harmonisation of new laboratory methods for enhanced surveillance.

The second goal is to administer the EULabCap system for monitoring key capabilities, core capacities and essential microbiology services for surveillance and disease prevention and control across the EU/EEA to inform decision makers about any vulnerability to remedy at Member State or EU levels. The Microbiology Coordination Section will strengthen communication on the Centre's microbiology activities and capacity building outputs with EU and Member State added value.

The third goal is to further refine and guide implementation of the ECDC roadmap for integration of molecular and genomic typing into EU-wide surveillance in a stepwise manner based on developing disease-specific objectives, critically reviewing the EU added value and outlining surveillance study designs. ECDC will offer scientific guidance on the public health added value of and solutions to integrate whole genome sequencing for pathogens under EU surveillance. This work will be performed in close collaboration with EFSA and academic leaders through advising DG RTD projects, including the Horizon 2020 COMPARE project on rapid genomic-based identification of pathogens, and by contributing to related international initiatives.

Decision 1082/2013/EU gives the European Commission and Member States a new, more robust legal basis for cooperation against infectious diseases and other serious cross-border health threats. The European Commission is examining options for creating a system of EU level reference laboratories in the area of human pathogens. ECDC will provide technical support and evidence based analysis of needs from the EULabCap monitoring system to the European Commission as it takes forward this initiative.

For 2017 we foresee a key role of the Microbiology Coordination Section to engage with stakeholders on EU vulnerabilities as detected through the mid-term evaluation report of EULabCap monitoring over the period 2013-16 of key laboratory capabilities to inform possible corrective actions.

Objectives 2017

The key objectives of ECDC's microbiology activities are to:

1. Support and monitor through the ECDC Disease Programmes the further strengthening and coordination of essential microbiology capabilities in Member States for surveillance, prevention and control of infectious diseases and antimicrobial resistance, informed by EULabCap performance indicator analysis.
2. Disseminate information to stakeholders and the public about the Centre's microbiology support actions and capacity outputs in terms of EU added value for efficient surveillance and threat detection and response support.
3. Provide information on specialist laboratory testing capacities available for sharing between Member States.
4. Develop strategic priorities and technical guidance as well as contribute to pilot demonstration projects for the integration of whole genome sequencing technology –based typing into the EU level surveillance of selected priority communicable diseases and antimicrobial resistance, in partnership with its Disease Networks and European Commission RTD projects such as COMPARE.
5. Provide technical support to the European Commission in developing a laboratory strategy for human pathogens.
6. Strengthen the cost-effectiveness and coordination of ECDC supported External Quality Assessment schemes for EU laboratory networks in close consultation with the European Commission to ensure complementarity with the EMERGE Joint Action and other EC laboratory initiatives.

Key Outputs 2017

1. Publication of EULabCap report on mid-term evaluation of progress 2013-15 of EU public health microbiology capacities including appraisal of impact of country capacity support actions (*ECDC strategic areas 2, 3 and 4*⁶).
2. Publication of ECDC annual microbiology support activity report (*ECDC strategic areas 2, 3 and 4*).
3. Pilot studies performed according to strategic roadmap for whole genome sequencing-based surveillance developed with the Member States along the Molecular Typing for Surveillance Task Force recommendations to ensure public health added value and EU wide participation (*ECDC strategic areas 2, 3 and 4*).
4. Evaluation report on ECDC supported External Quality Assessment schemes (*ECDC strategic areas 2, 3 and 4*).
5. Joint EFSA-ECDC report on antimicrobial resistance in *Salmonella* and *Campylobacter* in humans and food/animals compliant with EUCAST interpretive criteria (Cf. FWD disease programme) (*ECDC strategic area 1*).

Expected results / outcome

- By the end of 2017, the first three year assessment of critical capabilities and core capacities of national and EU level public health microbiology systems will have improved towards sufficient levels for supporting threat detection, surveillance and epidemic preparedness according to EU policies, guidance and Action Plans.
- The remaining areas for improvement should inform targeting of capacity building options for consideration by the European Commission in its consultation process on EU reference laboratory framework for human pathogens.
- The measurement of specific laboratory surveillance capacities will be further informed by results of external quality assessments, taking into account the capacity sharing between Member States.
- The added value of these improved capacities for public health will be disseminated in technical and scientific publications.
- It is expected that pilot studies developed with disease network laboratories in partnership with scientific consortia in the EU and globally will have tested solutions for integration of whole genome sequencing-based typing with epidemiological information for surveillance of select diseases and antimicrobial resistance threats, as prioritised with the Members States in consultation with the Molecular Typing for Surveillance Task Force.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
9	Implementation of the ECDC microbiology strategy to support the development of sufficient microbiology capacity	Proportion of Member States having microbiological core capabilities and capacity,	- Third annual EULabCap monitoring of three components of laboratory capabilities i.e. primary diagnostics;	Verification by country visits and peer review of Member States and other components (results of laboratory

⁶ See six strategic areas in chapter II.1 p 9

	within the EU, to detect, prevent and manage infectious threats. [ref. Objective 2017 – 1, 5]	as defined by the ECDC Microbiology Strategy	<p>national microbiology reference laboratory services and laboratory-based surveillance and epidemic response support</p> <ul style="list-style-type: none"> - Joint assessment with Advisory Forum and competent bodies of lessons learned from comparison of 2015, 2014 and 2013 EuLabCap indicators - Compare the laboratory EQA performance levels and EuLabCap capability levels for surveillance of communicable diseases and antimicrobial resistance - Pilot implementation of strategic roadmap for whole genome sequencing-based surveillance - Strengthened ECDC procurement process for external quality assessment schemes 	<p>External Quality Assessment – EQA – exercises).</p> <p>EuLabCap report</p>
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Total Resources Scientific Support (including microbiology):

Total FTEs for this activity: **14.2**

Total operational budget title 3: **776,000 EUR**

3. Preparedness and response

3.1 EU and Country Preparedness Support

Context

Article 4 of Decision 1082/2013/EU on serious cross-border health threats establishes an ambitious agenda for the full implementation by the Member States of the legal provisions, especially in regards to enhanced capacities to prepare for and respond to emerging threats. Providing technical support to that agenda is one of ECDC's top priorities for 2017 and beyond.

Preparedness planning, identification of gaps, and capacity building is critical if the EU and its Member States are to respond effectively to major epidemics, and other serious cross-border health threats. The recent international threats have increased the awareness of public health practitioners on the importance to base their response on good scientific evidence for preparedness, enhanced cooperation with critical sectors, and sharing of good practice across countries.

For 2017, we foresee strengthened cooperation between preparedness support and capacity building within ECDC in support to countries' efforts to have efficient readiness to public health emergencies. In 2013-2015, ECDC has been building evidence and developing instruments for identification of gaps and

needs (risk categorization, self-assessment tools, and case studies). Started in 2016 ECDC aims to provide direct support in reinforcing capacity in specific areas, such as testing and proofing effectiveness of public health readiness and strengthening core capabilities in critical preparedness areas. This work will continue in 2017. In order to get closer to the countries, efforts in 2017 will increasingly be focussing on regional dimensions, addressing different needs of countries prioritising those with greatest needs.

The exact content of the activities will be guided by the ECDC National Focal Points for Preparedness and priorities set by the Health Security Committee.

The ECDC activities to support national preparedness planning needs to be harmonised with WHO efforts to support the full implementation of IHR. The outcomes of the ongoing WHO discussions on global IHR monitoring and evaluation scheme for use after 2016 will further inform the more detailed planning and priority setting.

Objectives 2017

The key objectives of ECDC's Country Preparedness Support activities are to:

1. Support the European Commission in monitoring the implementation of Decision 1082/2013/EU (in particular Art. 4 – preparedness) with scientific evidence base, gap analysis and identification of areas for enhanced support to MS.
2. Strengthen preparedness in countries by providing methodological advice on effective preparedness planning, evaluation of response plans and their interoperability, while maintaining resilience to cooperate with HSC and its dedicated subgroups, as well as WHO IHR working groups.
3. Support exchange of knowledge and practice among relevant professionals and organisations at EU and regional level to further strengthen capacities and capabilities, and promote operational research for effectiveness of public health emergency preparedness in EU.
4. Provide the European Commission with gap analysis on public health preparedness in individual Member States to support EU policies and actions on emergency preparedness.

Key Outputs 2017

1. Technical guidance and tools in support of national preparedness planning (*strategic area 2*⁷).
2. Technical support to the preparedness working group under the Health Security Committee and IHR (*strategic areas 2 and 3*).
3. Direct support to countries' preparedness planning based on needs assessments in a country specific and regional approach (*strategic areas 2 and 3*).
4. Based on agreement with WHO align activities on the improvement of implementation and monitoring of IHR by supporting national preparedness planning (*strategic areas 2, 3 and 4*).

Expected results / outcome

1. National preparedness plans tested through simulation exercises and critical incident review in at least 6 countries identified through needs assessment and analysis of surveys.
2. Set of standardised competencies on public health emergency preparedness adopted by NFP and agreement reached on a pilot monitoring framework for their integration in national plans of at least 4 member states.
3. Two regional (multi-country) training workshops conducted on a set of proofing tools (simulation exercise planning, critical incident review, and assessment protocols)

⁷ See six strategic areas in chapter II.1 p 9

4. Establishment of a network of research agencies for the promotion of a research agenda on PHE preparedness, and production of a first funded document on research gaps and initiatives.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
11	Support the European Commission in monitoring the implementation of Decision 1082/2013/EU (in particular Art. 4 – preparedness) with scientific evidence base, gap analysis on PH preparedness of individual MS and identification of areas for enhanced support. [ref. Objective 2017 - 1]	Proportion of ECDC products in the area of PH Emergency Preparedness submitted to the Commission and included in the agenda of the Preparedness working group of the Health Security Committee	- 50% by end of 2018 - Progress report on Art. 4 used by European Commission	- Publication of technical reports following country visits distributed to relevant stakeholders within the set timeframe. - Endorsement of progress report on Art.4 by the HSC as presented by the European Commission.
12	Strengthen preparedness in countries by providing methodological advice on effective preparedness planning, evaluation of response plans and their interoperability, while maintaining resilience to cooperate with HSC and its dedicated subgroups, as well as WHO IHR working groups. [ref. Objective 2017 - 2]	Proportion of ECDC activities (guidance, seminars, workshops, exercises, country visits) undertaken to reach the planned objectives	- 90% of the key output of the SPD achieved by end of 2017	- Meeting report of NFP annual meeting. - Review of National preparedness plans - ECDC Annual report
13	Support exchange of knowledge and practice among relevant professionals and organisations at EU and regional level to further strengthen capacities and capabilities, and promote operational research for effectiveness of public health emergency preparedness in EU. [ref. Objective 2017 - 3]	Proportion of trained countries which will integrate tools and methods referenced to ECDC products for evaluation into national planning cycle	- 50% of countries actively involved have integrated the outcomes in their national plan by end of 2018	- Technical reports on training workshops - Workshop evaluation reports

3.2. Response and emergency operations

Context

Decision 1082/2013/EU on serious cross border health threats is strengthening and intensifying coordination between the European Commission and Member States on preparedness and response against health threats. ECDC will operate the Emergency Operations Centre (EOC) and host the extended EU Early Warning and Response System on Public Health Threats (EWRS). Other ECDC's expert resources will also facilitate the EU level response to serious cross border threats to health. Since 2006, ECDC maintains and invests in the EOC infrastructure. Moreover, ECDC continuously improves its processes in this area in light of lessons learning during both exercises and real life Public Health Emergencies.

Public Health Event (PHE) plans in ECDC will be updated in 2017. European Public Health Teams will be implemented to better contribute to international response missions.

Specific improvements in the current EWRS tool to integrate new functionalities will be agreed with DG SANTE. The collaboration with MS in the area of threat detection, is being improved through the annual

meeting with the NFP for threat detection EWRS and IHR. Ad hoc meetings organized periodically also contribute to maintain the coordination between ECDC and MS.

Objectives 2017

1. Strengthen the participation of ECDC teams in the response support in Member States and third country facing serious threats for public health (*strategic area 3, 4 and 5⁸*)
2. Develop the mechanism to mobilise public health response teams from the Member States and ECDC in liaison with the European Commission mechanisms (*strategic area 3, 4 and 5*);
3. Further improve the capacities and processes of the Emergency Operation Centre (*strategic area 3, 4 and 5*);

Key Outputs 2017

1. Mobilisation mechanisms for public health response teams developed
2. ECDC emergency operation centre strengthened to support deployment of field teams (*i.e. training, briefing, communication, security and health related issues, debriefing upon return*).

Expected results / outcome

- Public Health Event (PHE) plans in ECDC up to date.
- European Public Health Teams better contribute to international response missions.
- EWRS tool further improved

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
1	Mobilisation mechanisms for public health response teams developed [ref. Objective 2017 - 2]	Provision of support teams upon request from Member States	- 100% requests for response support from Member States honoured	List of requests from Member States
2	ECDC emergency operation centre strengthened [ref. Objective 2017 - 3]	Number of field missions supported from the EOC	- 100% of field missions supported from the EOC with a good level of satisfaction	Missions reports

Total Resources Preparedness and Response:

Total FTEs for this activity: **6.3**
 Total operational budget title 3: **158,000 EUR**

⁸ See six strategic areas in chapter II.1 p 9

4 Training and capacity building

4.1 Training

Context

In 2015, the ECDC Management Board approved a new public health training strategy. The strategy outlines the specific role of ECDC in the European training landscape, being complementary to and supportive of the training activities of other national actors, including institutes of public health, universities and schools of public health and adding European values to national efforts. The strategy further defines the primary target audience to be experts at the Member States and the Community levels, who are designated to contribute to dealing with cross border health threats due to communicable diseases. Effectively, this target audience will be approximated by the sum of all professionals who are formal members of ECDC related networks. However, through supporting cascading of training within the countries and by making e-learning accessible to all professionals working on disease prevention & control, the ECDC aims to support training programs and assist member states to train also other professionals at local, sub national and national levels that contribute to communicable disease preparedness, prevention, detection, assessment and control. The strategy also emphasis competency based training in a needs-based approach. A comprehensive training needs assessment is being carried out in the autumn of 2015 and planned to be periodically updated in coordination with the NFP-Training.

The key objectives of ECDC's Public Health Training activities as defined in the new training strategy are:

1. To strengthen and maintain the workforce in the Member States and at the Community level through relevant training of key national experts, in order to ensure adequate performance of functions for communicable disease preparedness, prevention, detection, assessment and control nationally and cross-border.
2. To strengthen and maintain a network of European and global training partners, supporting capacities to provide training to the workforce in the EU at local, subnational, national and Community levels.
3. To support the cascading of training within the Member States by providing a common virtual training infrastructure with access to training material, e-learning and platforms for communities of practice.

To meet these strategic objectives, ECDC aims to set up a new Continuous Professional Development Programme (CPDP) supporting professional development of seniors in the ECDC networks through continuous education (life-long-learning) in a blended format. These seniors are expected to support cascading of training within their countries and to assist these efforts ECDC will provide common virtual training infrastructure will that allow partners' access to training material, e-learning courses and provide platforms for communities of practice.

Following guidance from the Management Board and the 2015 Joint Strategy meeting. ECDC intends to put the present EPIET and EUPHEM into one single programmatic framework. This approach will allow for further additions of professional paths through the programme, e.g. hospital hygiene.

ECDC will continue to work closely with its partners. Within Europe we are mainly working with the Association of Schools of Public Health in the European Region (ASPHER) looking for synergies and sharing of experiences and virtual resources. In the European neighbourhood area ECDC is providing the scientific leadership to the Mediterranean Programme on Intervention Epidemiology Training (MediPIET). As the present MediPIET funding will cease in 2017 finding a sustainable solution together with the European Commission and partner countries will be of key importance.

Objectives 2017

1. Allow each EU Member State to participate with at least one fellow in ECDC Fellowships
2. Establish final structure and curriculum components of the new Continuous Professional Development Programme (CPDP) in agreement with the ECDC Networks
3. Allow an average of 10 participants per Member State to participate in CPDP blended learning activities
4. Consolidate and further simplify the single operational programme structure of the ECDC Fellowship that allows distinct curricular processes for Intervention Epidemiology, Public health microbiology and in future potentially other curricula.
5. Based on the ECDC Virtual Academy establish blended learning approaches for the ECDC Fellowship and CPDP, including training performance assessment
6. Consolidate the ECDC-ASPHER network of schools of public health, able to deliver the curriculum communicable disease prevention & control to national and subnational audiences.
7. Conclude the scientific leadership to the implementation phase of MEDIPIET, including recommendations for solutions of sustainability post 2017

Key outputs 2017

1. The EPIET and EUPHEM paths of the ECDC fellowship programmes put into one programmatic framework with core courses, profession-specific courses and elective courses dependent on professional background and future career ambitions of the fellows (*strategic areas 2 and 3*).
2. The new Continuous Professional Development Programme (CPDP) launched supporting the senior level workforce through blended learning (*strategic areas 2 and 3*).
3. Performance assessment for fellowship and implemented CPDP modules integrated in the LMS.
4. Blended approach for Computer Tools and Vaccine modules in fellowships, with online modules that support the AMR and HAI courses in the CPDP.
5. A joint ECDC-ASPHER network of schools of public health with interested in and curriculum on communicable disease prevention and control in place (*strategic areas 2, 3 and 4*).
6. Scientific leadership and support to the implementation phase of the Mediterranean Programme for Intervention Epidemiology Training (MediPIET) and support in finding sustainable solutions for the programme post 2017 (*strategic areas 2 and 4*).

Expected results/ outcomes ECDC training strategy further implemented

- One programmatic framework in place, with 40 new fellows recruited in the fellowship programme in 2017.
- New Continuous Professional Development Programme (CPDP) launched with 300 mid-career and senior professionals participating in the CPDP in 2017, and are expected to support cascading of training within their countries.
- 5 new e-learning courses available in the LMS.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
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⁹ See six strategic areas in chapter II.1 p 9

13	To strengthen and maintain the workforce in the Member States and at the Community level through relevant training of key national experts, in order to ensure adequate performance of functions for communicable disease preparedness, prevention, detection, assessment and control nationally and cross-border. [ref. Objective 2017 – 1, 2, 3, 4]	<ul style="list-style-type: none"> A. Number of people trained, per member state, per core function* B. Participant satisfaction with ECDC training activities. C. Number of scientific articles of public health relevance by EPIET/EUPHEM fellowship during and 2 years after graduation. D. Number of graduates working in Public Health per Member State, per discipline (absolute and proportional) 	<ul style="list-style-type: none"> A. 40 fellows included in ECDC fellowship, 300 Member State Experts participated to CPDP courses B. >80% satisfaction C. > 50% increase compared to the 2-year period before entering the programme. D. Reduction of the gaps identified by the Training Needs Assessment 	<ul style="list-style-type: none"> A. From ECDC training database : number of trained people B. Course evaluation Database + ECDC VirtualAcademy (EVA) platform, Bibliometrics (PubMed, Scopus) D. ECDC Virtual Academy (EVA) : follow up of graduates (profile updates), LinkedIn, Pubmed, CCB
	To strengthen and maintain a network of European and global training partners, supporting capacities to provide training to the workforce in the EU at local, subnational, national and Community levels. [ref. Objective 2017 - 6]	<ul style="list-style-type: none"> A. Perceived added value of ECDC Public Health Training activities by training stakeholders. B. Number of joint trainings provided to EU workforce together with ECDC training partners 	<ul style="list-style-type: none"> A. > 75% B. At least 2 trainings 	<ul style="list-style-type: none"> A. Annual stakeholder survey Dedicated survey
	To support the cascading of training within the Member States by providing a common virtual training infrastructure with access to training material, e-learning and platforms for communities of practice. [ref. Objective 2017 - 5]	<ul style="list-style-type: none"> A. Increase of number of views of FEMWIKI B. Number of cascaded courses in EU Member States 	<ul style="list-style-type: none"> A. + 20% views Coverage of views in all 28 MS B. 6 Member States having used EVA in cascaded courses 	<ul style="list-style-type: none"> A. Google analytics and FemWiki Platform database B. ECDC Virtual Academy (EVA) platform

* ECDC is in contact with WHO and other partners in order to align efforts to support Member States with the definition of indicators of capacity, targets for these indicators, and tools for PH workforce assessment and planning.

4.2 Coordinated country support

ECDC has provided capacity support to the Member States since its establishment through various means, such as training, assessments/peer reviews, facilitation of sharing of experiences and good practices, development of toolkits and guidance, laboratory support, etc. While there is a good system in place for prioritising scientific advice topics to be included in ECDC work plans (IRIS), a similar system is not existing for prioritisation of other capacity building activities supporting the Member States. These activities have also not always been implemented in a coordinated and structured way, and have too often been based on an ECDC perspective rather than on broad country perspectives.

The second external evaluation has stated that ECDC in its activities needs to get closer to the countries in order to obtain a better understanding of the varying health systems and needs of the countries that can constitute the basis for a strategic country support framework. In 2015, the European Commissioner of Health and Food safety, Vytenis Andriukaitis, launched an initiative to compile country health profiles with the intention to “highlight where improvements are needed (...) and point to all tools available (...) to trigger such improvements”.-ECDC will continue to support the Commission’s priority on country knowledge.

In the Joint Strategy Meeting in September 2015, the participants were strongly supporting a draft new ECDC country support strategy. This larger ECDC Country Support Strategy¹⁰ follows the same principles as the Training Strategy. It defines how ECDC in a coordinated, structured and country-driven way could support sustainable national capacities and capabilities in the Member States for efficient prevention, detection and control of communicable diseases with a potential cross-border health threat dimension. Such support should have a regional dimension and added European value. Based on the input from the JSM meeting, the draft strategy will after a consultation period in 2015 be presented to the Management Board in 2016. The guidance of the Advisory Forum and the CCBs will ensure that the support activities are aligned with the ECDC mandate and adding European value.

The strategy will per se not include any new country support activities but ensure better coordination and that such activities are meeting country needs.

The key objectives of ECDC's country support activities are:

1. To define, together with the Member States, robust transparent methodologies to assess capacity, capability, training and other support needs and opportunities in countries, regions and across the EU.
2. To agree with the Coordinating Competent Bodies and the Advisory Forum on country-driven transparent methods for priority setting of ECDC country support activities, based on a regional dimension and ensuring added European value.
3. To plan and implement in a structured and cost-efficient way country support aimed at all or groups of countries, meeting identified needs and finding synergies between actions.

Key Outputs 2017

The key expected outputs for 2017 are:

1. A robust and coherent methodology on needs and opportunities assessments across the broad areas of ECDC support activities agreed with the Advisory Forum, the Coordinating Competent Bodies and the European Commission (*strategic areas 2 and 3¹¹*);
2. Agreed mechanisms for transparent priority setting of ECDC country support activities (*strategic areas 2 and 3*);
3. Pilot implementation of the new country support approach in a few priority countries with signed multiannual collaboration agreement between ECDC and the countries outlining the expected input from each party (*strategic areas 2 and 3*).

Expected results / outcome

1. A new needs-based, country driven approach to ECDC work with countries, ensuring added European value.
2. Efficient internal coordination of ECDC country support activities.

¹⁰ We here define country support as any activity implemented by ECDC aiming at enhancing the national capacities of all or groups of countries to prevent, prepare for, detect, assess and respond to threats due to communicable diseases, including both specific disease-related activities and support to the implementation of IHR core capacities 3 (surveillance), 5 (preparedness), 6 (risk communication); 7 (human resources), and 8 (Laboratory). This definition does not include the risk assessments and response support provided to the countries during ongoing public health events, nor does it include scientific guidance generally targeting all Member States.

¹¹ See six strategic areas in chapter II.1 p 9

4.3 International relations

Context

Further development of technical cooperation and exchange of information with countries bordering the EU is a key focus of ECDC's international relations. Within this group priority is given to the EU enlargement countries and European Neighbourhood Policy (ENP) partners. ECDC is working with the European Commission and the health authorities in these countries to progressively integrate them into ECDC activities, systems, and networks, thereby assisting them in aligning with the EU *acquis* in the area of communicable disease prevention and control, and exchange information and best practices on communicable diseases threats of common interest (e.g. AMR) as appropriate.

ECDC International Relations Policy 2014 – 2020 and the Strategic Multi-Annual Work Plan 2014 – 2020 set as one of the strategic objectives that by the end of 2017 some of EU Enlargement countries participate in specific disease networks and report to TESSy and to agreed EPIS platforms. ECDC will continue, upon the request of the European Commission, to assess EU enlargement countries' capacities in the field of communicable diseases and will continue the post assessment dialogues and monitoring of progress with countries already assessed. In order to better reflect the degree of implementation of the EU health threats legislation and the relevant *acquis* on food-borne infections, and to ensure alignment with global external assessment initiatives, the assessment tools will be reviewed.

Building on the results achieved in 2015 and 2016 under the ECDC-IPA4 grant (external EU financing under the Instrument for Pre-Accession Assistance), ECDC will further develop technical cooperation activities with experts from the EU enlargement countries, review the added value of integration of these countries in thematic EPIS platforms and pilot reporting of surveillance data on selected disease to TESSy. This information will be used to develop follow-up action plan for continuous engagement of these countries in EU-level surveillance structures and activities. This will support ECDC efforts to contribute to the strengthening of EU-wide preparedness and capacity building.

ECDC will continue its technical cooperation with the ENP partner countries in accordance with the ECDC Strategic Multi-Annual Work Plan 2014 – 2020 that calls upon ECDC to develop by 2020 well-established and sustainable procedures, tools, and contacts for technical cooperation with these countries. Building upon the achievements of the ECDC European Neighbourhood Partnership Instrument (ENPI) project (2014-2016) and the conclusions of ECDC assessments of national surveillance systems of Ukraine and Moldova, ECDC will maintain its support to the overall EU policy objective of bringing European Neighbouring Policy partners closer to EU standards. As part of this objective, particular attention will be given to further support East ENP partner countries which have signed new Association Agreements with the EU (i.e. Ukraine, Moldova, and Georgia). The level of activities to be envisaged with ENP countries in 2017 and beyond will depend on the availability and sustainability of the EU financial assistance topping up ECDC core budget. Providing a new grant from the European Neighbourhood Instrument, this objective will be achieved through strengthening of capacities, the approximation of practices and legislation, and participation of ENP experts in joint activities.

Building upon existing bilateral collaboration agreements with other centres for disease prevention and control (CDCs) or similar organisations in non-EU countries and with a view to support the continuous improvement of threat detection through cooperation with other partners, ECDC will continue its efforts to become a close technical partner of the major CDCs.

Finally ECDC will provide technical support to the Commission for its dialogues with international partners and third countries. This is undertaken within the framework of relevant EU external policies and coordinated at operational level via the Directorate General (DG) Health and Food Safety with other DGs of the Commission and the European External Action Service.

Objectives 2017

In accordance with the priority setting identified in the ECDC International Relations Policy 2014-2020, the key objectives of ECDC's international relations activities in 2017 and next years are:

1. Implement the final phase of ECDC-IPA4 grant and conceptualisation of the follow-up actions needed to maintain and enhance engagement of EU enlargement countries in EU-level surveillance activities, systems, and networks.
2. Upon request from the European Commission, completing one technical assessment of an EU enlargement country and ensuring that post-assessment phase effectively assists countries to develop and implement technical action plans.
3. Reviewing the current assessment tool to better reflect the degree of implementation of the relevant EU acquis on food-borne infections and the EU health threats legislation, and to align it as appropriate with global external assessment initiatives/tools.
4. Implement ECDC technical cooperation objectives and joint activities with ENP partner countries.
5. Upon request from the European Commission, support ENP partner countries having signed new Association Agreements with the EU (i.e. Ukraine, Moldova, and Georgia) in developing national action plans based on the assessments of their communicable disease prevention and control systems, and will support the European Commission in monitoring its implementation in the frame of the Association Agreements.
6. Enhance the collaboration with the WHO European Regional Office by reviewing the set processes for joint activities (e.g. joint reports, coordinated surveillance) to further implement the bilateral administrative agreement between ECDC and WHO European Regional Office [aligned with the collaboration agreement between the European Commission and WHO European Regional Office].
7. Revitalise the existing Memoranda of Understanding with the CDC's in non-EU countries.
8. Coordinate with the European Commission and related services the ECDC-facilitated deployments for outbreak response support in non-EU countries, including through liaison on deployments of European Public Health Teams under the European Medical Corps mechanism.
9. Support ECDC's scientific leadership and steering of the MediPIET Training programme.

3. Key Outputs 2017

1. ECDC-IPA4 project completed, including progress report on participation of EU enlargement countries in thematic EPIS platforms and TESSy on selected diseases, as well as in epidemic intelligence, preparedness and response, and public health microbiology focal points networks; ECDC follow-up action conceptualised and negotiated under IPA (*strategic areas 3 and 4¹²*)
2. Upon request from the European Commission, technical assessment of one enlargement country completed, Technical Assessment Report prepared and post-assessment phase up and running (*strategic area 4*)
3. Upon request from the European Commission, contribution to Sub-committee meetings on EU accession preparations and input provided in preparation of European Commission's annual enlargement progress reports;
4. Upon request from the European Commission, assistance to the European Commission in preparing EU enlargement countries for EWRS reporting;

¹² See six strategic areas in chapter II.1 p 9

5. Follow-up of projects under European Neighbourhood Instrument (ENI) or other financial instruments has been initiated and implementation started, if granted by the European Commission (*strategic areas 3 and 4*)

4. Expected results / outcome

1. Selected EU enlargement countries participate in specific disease networks and report to TESSy and to agreed EPIS platforms
2. Policy and action plan developed on engaging the EU enlargement countries in the EU surveillance activities
3. Upon request from the European Commission, one EU enlargement country assessed, technical report submitted to the European Commission, and technical action plan proposed
4. An annual follow-up report to the European Commission of the implementation of the joint ECDC-EU Enlargement country technical action plan after the assessment visit for Montenegro and Serbia
5. Continuation of technical cooperation with ENP partners under ENI, subject to approval by the European Commission

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
14	Achievement of timely and sustainable support to the European Commission and relevant countries in the implementation of EU enlargement and ENP policies. Established and functioning working relations with relevant international partners. [ref. Objective 2017 – 1,2,3,4,5]	Completion of an agreed list of joint activities established between ECDC and its international partners	- Degree of completion of the key outputs for the Work Programme 2017, in the area of cooperation and collaboration: 80 % activities successfully implemented	Work Programme 2017 list of key outputs

Total Resources Training and capacity building:

Total FTEs for this activity: **28.0**
 Total operational budget title 3: **4,460,500 EUR**

5 Communication

5.1 Health Communication

Context

The strategic multi-annual programme (SMAP) 2014–2020 emphasises the importance of ECDC being a main source of authoritative and independent scientific information within the areas of its mandate. ECDC as the main European agency for risk assessment in the area of communicable diseases, has an important role in ensuring that health professionals and policy makers across Europe act on the basis

of the best available information and evidence. This information may be generated by ECDC and its networks, but may also come from partners in the countries, including academia.

The SMAP also identifies four target groups that ECDC serves; health professionals, policy-makers, the media, and health communicators. The SMAP leaves out the general public as an audience that ECDC communicates directly to, but rather states that ECDC will support national authorities and other stakeholders in efforts to reach their citizens.

Risk communication is considered an essential part of risk management, and is thus the prime responsibility of the Member States and the European Commission. The role of ECDC is to provide data informing the risk communicators in the countries and to support the European Commission in its coordinating role. This means that ECDC is communicating its scientific content to our target audiences but not directly to the general public.

ECDC is also supporting Member States to build and reinforce their risk communication capacities as an integrated part of generic national preparedness planning, as well as supporting the communication efforts of national authorities and other stakeholders on specific topics, e.g. European Antibiotic Awareness Day and increasing vaccine uptake.

Objectives 2017

The key objectives of ECDC's health communication activities are:

1. Ensure that ECDC scientific and technical outputs are timely, easily available, useful and re-usable.
2. Consolidate the reputation of ECDC as an independent, transparent agency that produces high quality scientific content.
3. Adjust our outputs to be responsive to the needs of our target audience, and supporting better sharing of science and data among stakeholders.
4. Support EU Member States and the European Commission's communication efforts in the field of risk and crisis communication, including the European Antibiotic Awareness Day (EAAD) and vaccination awareness.

Key Outputs 2017

1. Timely communications of ECDC scientific and technical content adapted to its main target audiences through an array of appropriate communication channels (*strategic area 1¹³*);
2. Technical guidance and training on risk communication as part of ECDC support to national preparedness planning (*strategic areas 2 and 3*);
3. Technical support to the communication working group under the Health Security Committee (strategic area 2 and 3);
4. Technical support to national health communication campaign activities, notably the European Antibiotic Awareness Day (*strategic areas 2 and 4*).

Expected results / outcome

1. ECDC scientific and technical content available to those who needs it, when they need it and in an appropriate format. National policy decisions on communicable disease prevention and control, informed by ECDC science and guidance when appropriate.

¹³ See six strategic areas in chapter II.1 p 9

2. Risk and crisis communication better integrated in national preparedness planning.
3. Increased public awareness of risks linked to AMR.

Indicators

Nb.	Objective	Indicator	Target 2018	Verification
22	Ensure that ECDC scientific and technical outputs are timely, easily available, impactful, reusable and adjusted to the needs of our target audiences [ref. objective 1]	<p>Usage of the ECDC web portal and social media channels</p> <p>Perception of timeliness, usability and usefulness of ECDC outputs</p>	<p>+5% web visitors +10% followers on Twitter</p> <p>Favourable perception of at least 75% respondents</p>	<p>Web and social metrics used for verification</p> <p>Perception study</p>
23	Consolidate the reputation of ECDC as an independent, transparent agency that produces and disseminates high quality scientific content [ref. objective 2]	Increase of media articles in Europe referencing ECDC and its experts	+5% compared to previous year	Media monitoring
24	Support sharing of knowledge, data and analysis among stakeholders with a focus on strengthening communication capacity and preparedness in EU Member States [ref. objective 3]	<p>Number of ECDC materials, workshops, meetings and training activities in the area of risk and crisis communication.</p> <p>Provision of Lines to take (LTTs) documents for handling media queries in public health crisis, for information to Member States and the Commission</p>	<p>At least 3 activities</p> <p>100% of Lines To Take (LTTs) shared with Member States and the Commission</p>	<p>Annual review of communication activities</p> <p>Quality and timeliness verified by feedback from European Commission on HSC actions and decisions</p>

5.2 Eurosurveillance

Context

Eurosurveillance will continue to provide an attractive outlet for peer-reviewed publications on the epidemiology, surveillance, prevention and control of communicable diseases with focus on Europe. It will also carry on supporting timely public health action by facilitating rapid communication about outbreaks or events related to communicable diseases. The good impact factors and further positive metrics for the journal have positioned it among the top ten in its category. Thus the number of submissions and workload are high. A continued challenge has therefore been to maintain quality and speed of published articles and remain attractive for our audiences. While several improvements 'behind the scenes' in 2015 have led to improved functionality, the presentation of the journal via its website needs to be further amended to meet readers' and authors' expectations and match that of other journals in the field. Work towards this effect i.e. procurement of a new publication solution has started in 2015 and will continue with the aim of implementation starting in 2016 and completion by mid-2017.

The annual board meeting will give important strategic input for the journal policy and reinforce ties with experts in the national institutes in the Member States. A scientific seminar on the margins of an international conference (preferably ESCAIDE) will be an opportunity for the editors to liaise closely with some main partners and contributors and boost our reputation through high quality content.

The reputation as credible and scientifically integer publication will be further fostered by the editors' following and where appropriate engagement in activities around publication ethics. Development of an educational article series will support capacity building and life-long learning.

Objectives 2017

1. Consolidate the high level profile and attractiveness of the journal, while maintaining the balance between articles presenting high-level science and those presenting good quality public health-relevant findings.
2. Follow new developments in evidence-based public health.
3. Further develop educational arm by providing educational/scholarly articles such as reviews and methodological papers etc. to support capacity building and attract younger audiences.
4. Follow developments in publications ethics.
5. Increase the presence of the journal in social media.

Key outputs 2017

1. Website optimised with features commonly provided by other scientific journals to (i) offer modern functionalities design for the benefit of readers and authors alike, (ii) to allow editors to work more efficiently through a content management system. *(ECDC strategic areas 4 and 5¹⁴);*
2. Visibility of the journal further enhanced by a scientifically attractive seminar embedded in a large conference and presence of staff at scientific conferences and strategic presence on social media. *(ECDC strategic areas 1 and 4);*
3. Follow up actions of the editorial board meeting end 2016 implemented. *(ECDC strategic area 4);*
4. Series of scholarly, educational articles aimed at capacity building and contribution to life-long learning started. *(ECDC strategic area 2);*
5. Implementation/updated editorial policies reflecting new developments where necessary. *(ECDC strategic area 1);*
6. Published articles using evidence-based methods. *(ECDC strategic area 1)*

Expected results / outcome

- ECDC scientific, capacity building and outreach activities supported/complemented and Member States' needs fulfilled by provision of high quality information and data for (rapid) public health action and decision making.
- Widely accepted reputation of the journal as highly respected quality outlet for public health and scientifically relevant articles.

¹⁴ See six strategic areas in chapter II.1 p 9

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
18	Consolidate the high level profile and attractiveness of <i>Eurosurveillance</i> [ref. Objective 2017 - 1]	Number of issues and items published Impact factor for <i>Eurosurveillance</i> and journal rank positioning in Q1	- 50 issues and 200 items published in 2017 - IF >3	<i>Eurosurveillance</i> web site Journal Citation Reports, Thomson Reuters, SCImago

Total Ressources Communication and *Eurosurveillance*:

Total FTEs for this activity: **21.5**
 Total operational budget title 3: **438,000 EUR**

6. Disease programmes

6.1 Antimicrobial resistance and healthcare-associated infections - ARHAI

Context

The issues of antimicrobial resistance (AMR) and healthcare-associated infections (HAIs) are getting higher on the EU agenda, as the various AMR threats keep increasing. Prudent use of antimicrobials, infection prevention and control, and the need for new antibiotics will continue to be the focus of European initiatives. Especially, the alarming trends of increasing resistance to last-line antimicrobial agents such as carbapenems and polymyxins in Gram-negative bacteria, as reported by EARS-Net and the EuSCAPE project in 2013-2015, require close surveillance and concerted efforts in the EU and at international level.

Despite recent efforts and successes at Member State level, at EU level and globally, there is still, in many Member States, poor awareness among healthcare professionals and among the general public about the need for prudent use of antibiotics and for infection prevention and control measures. Moreover, guidance documents, examples of best practice and success stories in preventing and controlling AMR and HAI are rarely shared between Member States.

Since 2014, our stakeholders have asked for intensified efforts on the surveillance, prevention and control of AMR and HAIs, in particular on estimates of the burden and costs of HAIs, and a monitoring and evaluation system with a set of indicators to assess implementation of national strategies/action plans and their success in improving prevention and control of HAIs. In addition, the development of a directory of online resources (repository) and of a toolbox of essential control options and interventions to prevent and control HAIs and AMR have been prioritised to improve sharing of available resources, information and best practice at EU level.

The high priority of AMR on the European and global agenda is likely to continue in 2017 and the following years. On 22-23 October 2015, the Transatlantic Task Force on AMR (TATFAR) discussed a new set of actions, including ten actions to which ECDC will need to contribute during for the period 2016-2020. In addition, by 2017, (a) the European Commission will possibly have adopted a 2nd Action Plan on AMR, (b) WHO will have completed implementation of the first two years of its Global Action Plan on AMR and (c) the Global Health Security Agenda (GHSA) will continue the implementation of its AMR Action Package. The extent of the contribution of ECDC to these initiatives is not known as of April 2016. This would necessitate an increase in the number of staff members (FTEs) working with the

ARHAI disease programme, thus making it possible to achieve the necessary key outputs as listed below that represent a significant increase compared to the original SMAP 2014-2020.

Objectives 2017

The objectives of the ARHAI disease programme on AMR are:

1. Improve the quality and sustainability of surveillance systems on AMR at EU, national, regional and local levels and improve access to surveillance data at local and regional levels;
2. Strengthen international collaborative activities on AMR including through collaboration with WHO, the TATFAR, the Northern Dimension Partnership on Public Health and Social Well-being (NDPHS), the GHSA, EU Enlargement and (East) European Neighbourhood countries and other non EU partners;
3. Produce better estimates of the burden of AMR in the EU and its Member States;
4. In cooperation with the European Commission and Member States, support activities on AMR through the provision of advice, guidance and training;
5. Raise awareness about prudent use of antibiotics through the contribution to the European Antibiotic Awareness Day (EAAD), in partnership with the WHO World Antibiotic Awareness Week.

The objectives of the ARHAI disease programme on HAIs are:

6. Improve the quality and sustainability of surveillance systems on HAIs at EU, national, regional and local levels and improve access to surveillance data at local and regional levels;
7. Produce better estimates of the burden of HAIs in the EU and its Member States;
8. In cooperation with the European Commission and Member States, support activities on HAIs through the provision of advice, guidance and training.

Key Outputs 2017

The key outputs on AMR are:

1. EARS-Net: updated interactive database 2016 on surveillance of AMR and summary of 2016 data (*ECDC strategic area 2¹⁵*)
2. ESAC-Net: updated interactive database 2016 on surveillance of antimicrobial consumption and summary of 2016 data (*ECDC strategic area 2*)
3. ESAC-Net: report on pilot survey on antimicrobial consumption in European hospitals (*strategic area 2*)
4. ESAC-Net: study on the quality and consistency of antimicrobial consumption surveillance data and proposal of corrective measures, e.g. consensus expert meeting on defined daily doses (*ECDC strategic area 2*)
5. Surveillance Atlas of Infectious Diseases (incl. country summary sheets): data on AMR and antimicrobial consumption (*ECDC strategic area 2*)
6. EARS-Net and ESAC-Net (together with HAI-Net): Results of pilot testing of a common operational unique identifier for hospitals that participate in the three networks (*ECDC strategic area 2*)
7. Revised estimates of the burden of AMR (*ECDC strategic area 1*)

¹⁵ See six strategic areas in chapter II.1 p 9

8. Provision of morbidity and mortality surveillance information on AMR to the European Commission and OECD to support economic impact assessment and modelling (*ECDC strategic area 3*)
9. Contribution to the 2nd Joint Interagency Antimicrobial Consumption and Resistance Analysis Report (JIACRA) (*ECDC strategic areas 2 & 4*)
10. In accordance with the ECDC roadmap for integration of genomic/molecular typing surveillance, launch of molecular typing surveillance of carbapenemase-producing *Enterobacteriaceae* (CPE) as part of the 2nd European Survey of Carbapenemase-Producing Bacteria (*ECDC strategic area 3; pending revision of the ECDC roadmap for integration of genomic/molecular typing surveillance and SMT decision about resources for its implementation*)
11. Development of a methodology for pilot molecular surveillance of meticillin-resistant *Staphylococcus aureus* (MRSA) (*ECDC strategic area 3; pending revision of the ECDC roadmap for integration of genomic/molecular typing surveillance and SMT decision about resources for its implementation*)
12. Guidance (general principles) for the prudent use of antimicrobial agents in human medicine (*ECDC strategic areas 1*)
13. Work on guidance for screening for multidrug-resistant (MDR) bacteria in healthcare settings started, including a priority list, according to defined criteria, of MDR bacteria for which patients should be screened (*ECDC strategic area 1*)
14. Revision of international proposal for definitions of multidrug-resistant (MDR), extensively drug-resistant (XDR) and pandrug-resistant (PDR) bacteria (*ECDC strategic area 1*)
15. Support to the European Commission on the implementation of its 2nd Action Plan on AMR (*ECDC strategic area 3*)
16. Country visits to discuss AMR issues: initial one-week visits, shorter follow-up visits, as well as provision of support to country visits on AMR organised by DG SANTE (*ECDC strategic area 3*)
17. Close collaboration with the Joint Action on AMR (and HAIs) (*ECDC strategic area 3*)
18. Support to WHO on the implementation of the Global Action Plan on AMR (*ECDC strategic area 4*)
19. 10th European Antibiotic Awareness Day (EAAD), 18 November 2017, in partnership with the 3rd WHO World Antibiotic Awareness Week (*ECDC strategic area 4*)
20. Participation in the expert group of the Northern Dimension Partnership on Public Health and Social Well-being (NDPHS) (*ECDC strategic area 4*)
21. Contribution the Transatlantic Task Force on AMR (TATFAR), in particular (a) consultation and collaboration on a point prevalence survey of HAIs, (b) contribution to the development of a common system for sharing and analysing AMR patterns identified as urgent and serious threats, and (c) encouraging efforts to harmonise, to the extent possible, interpretive criteria for susceptibility reporting of bacterial isolates for contribution of data to the WHO Global Antimicrobial Resistance Surveillance System (GLASS) (*ECDC strategic area 4*).

The key outputs on HAIs are:

22. HAI-Net: 2nd Point prevalence survey of HAI and antimicrobial use in European acute care hospitals; complete data collection and validation studies (*ECDC strategic area 3*)
23. HAI-Net: 3rd Point prevalence survey in European long-term care facilities; complete data collection (*ECDC strategic area 3*)
24. HAI-Net: first report on surveillance of *Clostridium difficile* surveillance (*ECDC strategic area 3*)
25. Surveillance Atlas of Infectious Diseases (incl. country summary sheets): data on HAIs, structure and process indicators on prevention and control of HAIs (*ECDC strategic area 2*)

26. HAI-Net (together with EARS-Net and ESAC-Net): Results of pilot testing of a common operational unique identifier for hospitals that participate in the three networks (*ECDC strategic area 2*)
27. Revised estimates of the burden of HAIs (*ECDC strategic area 1*)
28. Provision of morbidity and mortality surveillance information on HAI to the European Commission and OECD to support economic impact assessment and modelling (*ECDC strategic area 3*)
29. Further implementation of the directory (repository) of online resources for the prevention and control of HAIs and AMR (*ECDC strategic area 2*)
30. Produce a first toolbox of essential control options and interventions to prevent and control HAIs and AMR (*ECDC strategic areas 1 & 2*)
31. Training courses for healthcare workers: control of multidrug-resistant micro-organisms in health care settings.

Expected results / outcome

- Further consolidation of ECDC's role as a hub of harmonised European surveillance systems for AMR and HAI, including molecular surveillance;
- Support to the Commission and Member States for the awareness, promotion, prevention and control of AMR and HAI through dedicated initiatives, guidance and tools;
- ECDC further established as a key partner in international cooperation initiatives to prevent and control AMR and HAI;
- Better synergies between the human and veterinary sectors, as part of the 'One Health' approach.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources ARHAI:

Total FTEs for this activity: **12.5**
 Total operational budget title 3: **1,565,154 EUR**

6.2 Emerging and vector borne diseases - EVD

Context

Emerging and vector-borne diseases pose a special challenge to ECDC and national public health authorities due to the biological complexity of their transmission pattern and their epidemiological potential. In recent years, several vector-borne disease outbreaks have occurred in Europe and an increased establishment and spread of invasive mosquitoes or spread of native ticks in new areas has been observed. New pathogens (e.g. bornavirus in "exotic" squirrels) have been identified and emergence of zoonosis in new areas have increase the risk of spread (e.g. Ebola in West Africa). It is anticipated that novel and unusual outbreaks of emerging and vector-borne diseases will occur with progressive risk towards endemicity in some areas.

Most vector-borne diseases have their own complex epidemiological features, like seasonality and periods of pathogen persistence in reservoirs or vectors without occurrence of human disease. They can quickly (re-)emerge or be (re-)introduced under the right conditions. ECDC's day-to-day contribution is to share real-time mapping of cases during transmission seasons for the whole of Europe, giving national health authorities (e.g. blood transfusion authorities) timely information for decision making.

Furthermore, truly new or rare diseases might appear or re-appear (e.g. louse-borne diseases). Efforts to monitor and control these uncommon diseases are hampered by often limited capacity for detection combined with some lack of knowledge or awareness of clinicians.

It is important to stress that Member States are facing different threats with regards to these diseases. In general though, four types of data are needed to understand and assess the risks linked to the different emerging and vector-borne disease situations in Member States: 1) disease data; 2) pathogen presence (in human, reservoir hosts or vectors); 3) the occurrence of vectors and 4) data on suitable environmental conditions and social/behavioural changes. This requires a wider perspective on the surveillance of EVD than usual. Moreover, improved assessment tools are needed such as risk mapping, risk forecasting and orientation on control strategies.

Objectives

The key objectives of ECDC's emerging and vector-borne disease programme activities in 2017:

1. In cooperation with the European Commission and Member States, to strengthen and standardise reporting of vector-borne and emerging diseases with e.g.
 - the updated of relevant case definitions and review of metadata;
 - the support for implementation of approaches for surveillance of Lyme borreliosis in the EU;
 - the progressive integration of human surveillance data with disease data on animals (e.g. for West Nile fever), vector distribution and GIS (re)processing
2. To integrate in the scientific outputs a multidisciplinary knowledge based on studies of social and environmental/climatic drivers in order to give a better and complete understanding of the diseases dynamics.
3. To provide ad-hoc risk assessments for vector-borne diseases in substance of human origin
4. To strengthen ECDC EVD-networks, to enhance the interactions with MSs and to extend expertise through closer contact and shared activities with international stakeholders particularly EFSA and WHO and EU funded initiatives/projects via DG Research and DG Environment.
5. To provide resources and capacity and organise country visits as complementary support to MSs in response to alerts, on ad-hoc requests and to review and, if necessary, strengthen country preparedness.

Key Outputs 2017

1. In-depth analysis of TESSy data and dissemination of publications with integration of animal and/or vector data based on the One Health approach where appropriate – (ECDC *Strategic Priorities 2 and 3*¹⁶)
2. Support to Member States with the implementation of options for Lyme neuroborreliosis' surveillance to assess trends – (ECDC *Strategic area 3*);
3. Real-time surveillance of mosquito-borne diseases (e.g. West Nile Fever) and development of an "early information system" to detect outbreaks- (ECDC *Strategic area 3*);
4. Increased laboratory capacity building for early detection and surveillance of EVDs through an outsourced laboratory network in coordination with the Microbiology Coordination Section and other EC related initiatives – (ECDC *Strategic area 3*);
5. Technical support to the Member States in emerging issues related to EVDs and actively supporting preparedness and training programmes on EVDs at ECDC – (ECDC *Strategic area 3*);
6. Data collection on disease vectors and the pathogens they transmit for updated vector distribution maps (mosquitoes, ticks and sand-flies), and ad hoc support in entomological expertise (with EFSA via an outsourced network, VectorNet) – (ECDC *Strategic areas 2,3 and 4*);
7. Risk analyses of emergence of EVDs and assessment tools to support decision making such as orientation of control strategies (e.g. dengue and chikungunya), aiming for effective EVD surveillance and MS preparedness – (ECDC *Strategic areas 2 and 3*);

Risk assessments and preparedness plans on three vector-borne diseases for authorities responsible for safety of substances of human origin – *EC 2016 request*
8. Quantitative analysis of the current dynamics of global air-traffic patterns and social and environmental/climatic drivers for a comprehensive understanding of the risk of importing infectious diseases (e.g. dengue, chikungunya, zika) and the spread of outbreaks to/from the European Union – (ECDC *Strategic areas 2 and 3*);

Expected results / outcome

- Support to Member States' efforts in understanding and addressing emerging and vector-borne diseases.
- In-depth analysis of EVDs surveillance data, real-time surveillance of mosquito-borne diseases and will support Member States with the implementation of options for surveillance of Lyme neuroborreliosis' case definition, recently adopted.
- Laboratory capacity building for early detection and surveillance of EVDs.
- Data collection on disease vectors via VectorNet, in order to prepare updated vector maps and provide ad-hoc entomological support.
- Risk analysis and assessment tools, such as risk mapping and decision tool for control strategies in order to support decision-makers. In addition, the programme will also work on projects assessing the effects of social and environmental changes, such as the current dynamics of global air-traffic patterns for a comprehensive understanding of the risk of importing infectious diseases.

¹⁶ See six strategic areas in chapter II.1 p 9

- Technical support in any emerging issues related to EVDs and will actively contribute to preparedness and training programmes in EVDs.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources EVD:

Total FTEs for this activity: **5.7**
 Total operational budget title 3: **646,600 EUR**

6.3 Food- and Waterborne Diseases and Zoonoses - FWD

Context

The food- and waterborne diseases and Legionnaires' disease epitomise the concept of serious cross-border threats to health, in that they are prone to outbreaks and clustering of cases that can cross national and international borders, due to trade of contaminated food, water, and/or infected animals as well as due to international travel of humans. This epidemiological characteristic, along with their potentially large economic impact on trade and tourist industry, makes the early detection and effective investigation of outbreaks particularly important. This requires multidisciplinary collaboration and regular communication between food safety, veterinary, environmental and public health authorities to implement timely control and prevention measures. Therefore ECDC works, amongst others, in close collaboration with EFSA and the European Union Reference Laboratories (veterinary reference laboratories). In addition to investing in detection and investigation of outbreaks, a robust enhanced long-term surveillance, integrating laboratory, clinical and epidemiological data, is essential to monitor trends and (re)-emerging strains, assess the public health impact of prevention and control measures implemented in the food and environmental sector, and to identify disease-specific epidemiological characteristics in the EU-wide human population. The linkage of surveillance of human disease with the monitoring of prevalence in food and animals is essential to produce appropriate public health risk assessments, both on an ad hoc basis and for a longer-term perspective.

The laboratory-based surveillance is facing a remarkable change due to introduction of next generation sequencing techniques and culture-independent diagnostics. To address these changes and to build on

the ECDC-EFSA-EURL *Listeria monocytogenes* collaborative European Listeria Typing Exercise (ELiTE), ECDC has prepared a pilot project with the aim to promote capacity and competence building on whole genome sequencing (WGS) in Member States and to foster the integration of WGS to EU-level surveillance of listeriosis. Through multidisciplinary workshops, ECDC can foster the cross-sectorial collaboration and promote implementation of appropriate control measures in persistent outbreak situations and where investigations repeatedly point towards a common source. Based on the experience gained through listeriosis projects and pending on the revision of the roadmap, ECDC will start to explore the options for integrating WGS to the outbreak investigation of Salmonella and STEC/VTEC at the EU level.

As indicated by the statistics for urgent inquiries and the upgrade of EPIS-FWD providing with an access to the nominated food- and veterinary authorities, for 2017, we foresee an increased need for response to persistent multi-country foodborne outbreaks. The joint EFSA-ECDC molecular typing database is piloted in 2015-2016. In 2017, the number of participating countries from food and human sector is expected to be increasing resulting in more threat signals that require further actions.

Objectives 2017

The key objectives of ECDC's Food- and Waterborne diseases and Zoonoses activities are:

1. To strengthen detection and investigation of multi-country outbreaks and persistent strains by linkage of human surveillance with that of food and animals, in particular through regular analyses in the new common joint molecular typing database with EFSA, and facilitate the transfer into policy and public health practice.
2. To provide scientific advice in the area of food- and waterborne diseases and zoonoses for the EU Member States and the European Commission
3. To perform analyses and publications of TESSy data with or without linking it to other data sources: food, feed, animal, and environment.
4. To enhance the control of Legionnaires' disease outbreaks at EU/EEA level by promoting early detection, facilitating investigation and/or coordinating of cross-border clusters/outbreaks.
5. To enhance the scope of surveillance for human TSEs in the EU/EEA (taking into account of the altered epidemiology and potential risks associated with TSE transmission).
6. To strengthen public health microbiology competence for FWD and Legionnaires' diseases
7. To develop a common strategy for prevention and control of listeriosis in the EU/EEA by reviewing the results of all EU-level *Listeria* projects (human, food) with EFSA, EURL for *Listeria monocytogenes*, the European Commission and the Member States.

Key Outputs 2017

1. European Union Summary Report on trends and sources of zoonoses, zoonotic agents and foodborne outbreaks 2016, EFSA-ECDC joint report (*ECDC strategic area 1&2*¹⁷);
2. European Union Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food 2016, EFSA-ECDC joint report (*ECDC strategic area 1&2*);
3. External quality assessments services for typing of *Listeria monocytogenes*, *Salmonella*, verocytotoxin-producing *E. coli*, for antimicrobial resistance of *Salmonella* and *Campylobacter*, and for Legionnaires' disease. (*ECDC strategic area 3*);
4. Discussion paper on a potential revision of human TSE surveillance in EU/EEA (*ECDC strategic area 3*)

¹⁷ See six strategic areas in chapter II.1 p 9

5. Capacity building opportunities through the FWD Expert Exchange Programme (FWDEEP) (*ECDC strategic area 3*);
6. ECDC network meeting for Food- and Waterborne Diseases and Zoonoses Network (FWD-Net) meeting together with EFSA, AMR meeting together with EURL for antimicrobial resistance, EuroCJD and European Legionnaires' Diseases Surveillance Network meeting (*ECDC strategic area 4*);
7. Strategy paper for tackling the emergence of listeriosis in EU/EEA in close collaboration with EFSA, EURL for *Listeria monocytogenes* and Member States, endorsed by the European Commission (*ECDC strategic area 1&4*);
8. International collaboration strengthened with global partners like US CDC and research projects, e.g. COMPARE and GMI, as well as with Institute Pasteur, towards an agreement on global WGS-based nomenclature at least for *Listeria monocytogenes* (*ECDC strategic area 3*);
9. Follow up of detected and notified multi-country microbiological clusters on a regular basis for *Salmonella*, *Listeria monocytogenes* and VTEC (*ECDC strategic area 2*);
10. Multidisciplinary workshop to enhance preparedness e.g. by reviewing lessons learnt from a multi-country foodborne outbreak (*ECDC strategic area 3*);
11. Addressing any emerging issue related to food- and waterborne diseases and zoonoses; e.g. emergence of Hepatitis E (*ECDC strategic area 3*);

Expected results / outcome

- Further improvement of the quality of surveillance at national and European level and enhanced laboratory services for the management of food- and waterborne and zoonoses, through External Quality Assessments and capacity building initiatives such as the FWD Exchange Programme (FWDEEP).
- Strengthened detection and investigation of persistent multi-country outbreaks together with EFSA and EU reference laboratories by linkage of human surveillance with that of food and animals, and transfer of the conclusions and outcomes of these investigations into policy and public health practice.
- Scientific advice to improve the prevention and control of food- and waterborne diseases and zoonoses at an EU level to the Member States and the European Commission.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources FWD:

Total FTEs for this activity:	9.64
Total operational budget title 3:	669,400 EUR

6.4 HIV, Sexually Transmitted Infections and viral Hepatitis - HSH

Context

This group of heterogeneous diseases in many cases have similar basic determinants such as links to sexual behaviour, deprived or poor communities, heavy stigma and in some cases discrimination and marginalised members of the community affected most by infection. However, an even stronger common characteristic is that these diseases have a tendency to persist as silent epidemics, with resulting challenges for disease detection, burden estimates, prevention and control. Dedicated programmes for each of these diseases need specific evidence and data, which are often difficult to obtain and validate, particularly from hard-to-reach populations. Many Member States suffer from the fragmentation of prevention and care services for HIV, STIs and viral hepatitis and this is a challenge to ensuring effective prevention and control. To overcome these challenges, evidence-based information on effective measures to prevent and/or reduce the harm from these infections is crucial.

A common factor in the work plan of HSH for the individual diseases is the focus on the collection, analysis and dissemination of the best available strategic information to support action. These efforts make a clear distinction between the needs of Member States in driving higher standards for surveillance and providing opportunities for sharing best practices in prevention and control programmes. This is supplemented by high quality, evidence-based scientific advice and guidance in those selected areas of prevention and control that are useful for both Member States and the European Commission. Technical support for the development and monitoring of EU action plans and international initiatives is provided, whether it is for HIV, viral hepatitis, the (re-) emergence of (some) sexually transmitted diseases or the threatening development of antimicrobial resistance for others ,in particular gonorrhoea.

Building on our past experience and the persistent threats, continued focus will be on those activities that have the biggest impact on reducing new HIV, STI and hepatitis infections, including treatment as prevention and pre- and post-exposure prophylaxis with appropriate antimicrobials (where shown to be of benefit) to enhance the public health impact.

As already started in 2015 and continued in 2016, for 2017 we intend to consolidate and strengthen our stakeholders needs and hence intend to steer our main efforts to ensure these are of most added value to Member States as well as the European Commission. We aim to continue evaluating the impact of past guidance, and to consult our stakeholders regarding the needs for further guidance or update of previous advice. We also foresee a need for better integration of epidemiological and response data. Further we will aim to make better use of already existing data to estimates at-risk population sizes, prevalence/incidence to modelling data for HIV and hepatitis B and C. For 2017, we still foresee the need to respond to direct technical requests from Member States, as well as the need to monitor frameworks (HIV/Hepatitis/STI). Also by 2017, a series of far reaching international initiatives dealing with these diseases will have been launched and these will impact our work significantly. The main being: UNAIDS Global strategy on HIV, UN High level meeting on AIDS, WHO Global Strategy on HIV,

WHO Global Strategy on STI, WHO Global Strategy on viral hepatitis, European Commission new Action Plans on HIV and Hepatitis.

These initiatives will place additional pressure on the limited resources available to work on these diseases. In particular the huge expansion of work on hepatitis C is expected to generate demands that cannot be met with current allocation of expertise and funds. As such there are capacity issues that call for an additional dedicated senior expert with expertise in hepatitis epidemiology and related public health policy to be recruited.

Objectives 2017

The key objectives of ECDC's activities in STI's, HIV/AIDS and blood borne viruses are:

1. Ensure scientific excellence in producing relevant evidence based technical reports and guidance, focussing especially on promoting the uptake of testing for HIV and hepatitis B and C, and structural determinants of risk among sex workers and youth.
2. Consolidate current surveillance programmes and increase the quality and availability of the outputs and better optimise their usefulness for key stakeholders.
3. Explore and develop supplementary sources of epidemiological data to compliment case based surveillance to improve the strategic information for decision making by developing sero-prevalence surveys, new clinic/lab based sentinel systems, incorporating alternative sources of relevant morbidity and mortality data, utilising cohort data.
4. Explore the utility and scope of genomic typing¹⁸ for AMR gonorrhoea, AMR HIV and hepatitis C and propose possible developments at the EU level.
5. Contribute to building capacity of MS and strengthening their prevention and control activities for STIs, hepatitis B and C and HIV
6. Support the European Commission strengthening EU-wide preparedness by monitoring the commitments, response or action plan targets of HIV, and other similar initiatives,
7. Support the MS in strengthening their preparedness by further developing monitoring their programmes and response to international commitments and action plan targets of HIV, and other similar initiatives and make more use of this data to improve their planning and evaluation of their public health actions.
8. Focus on prevention of sexually transmitted infections, including HIV, through the consolidation of links with key/relevant stakeholders and their networks, and the development of a comprehensive prevention framework.

Key Outputs 2017

1. Scientific Advice in the form of guidance or technical reports on MS identified important topics: uptake of testing for HIV and hepatitis B and C, new STI point of care tests, pre-exposure prophylaxis (PrEP) for HIV and structural determinants of risk among sex workers and youth. (*ECDC strategic area 1&3¹⁹*).

¹⁸ Pending revision of the molecular typing strategy

¹⁹ See six strategic areas in chapter II.1 p 9

2. More detailed analysis of the surveillance and molecular data with broader publication of this analysis in scientific journals. (*ECDC strategic area 1, 2 & 3*)
3. Various analytical reports and peer reviewed publications using additional sources of data to better explain the epidemiology of these diseases. – these will include the routine surveillance reports and associated scientific publications, evidence summary in preparation for the HIV testing guidance, evidence based opinion on prevention among youth; paper on structural barriers to uptake of testing, evidence summary in preparation for the Hepatitis testing guidance, paper on structural determinants affecting vulnerability of sex workers, paper on the HIV continuum of care in Europe, paper of the results of the LGV enhanced surveillance pilot, paper on Hepatitis B and C Sentinel morbidity and mortality estimates, various Dublin Monitoring reports among possible others. (*ECDC strategic area 1&2*)
4. Country visits to support MS in dealing with specific problems or threats depending on the expressed needs of the MS and the resources available. (*ECDC strategic area 3&4*)
5. Reports on Monitoring the EU response to HIV, and possibly hepatitis. (*ECDC strategic area 2&3*).
6. Draft for an established framework for prevention will be gradually developed after an Advisory Group on prevention has been set up to help define the possible extent and scope of the work of ECDC in this area. (*ECDC strategic area 3&4*)

Expected results / outcome

- More evidence for MS policy advisors to help improve national STI/HIV/Hep prevention and control programmes
- European Commission and MS provided with clear data on the monitoring of their response in order to better identify gaps and needs for further efforts.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources HSH:

Total FTEs for this activity: **9.7**
Total operational budget title 3: **906,000 EUR**

6.5 Influenza and other Respiratory Viruses - IRV

Context

Seasonal influenza continues to be the communicable disease with one of the highest morbidity and mortality impacts on the EU population. In addition, zoonotic influenza and other emerging respiratory viruses (IRV) continue to threaten public health in unsuspected and unexpected ways. Strong (pandemic) preparedness at the level of surveillance, laboratory activities and comprehensive actions in line with the serious cross border threats to health (Decision 1082/2013/EU) is needed. Globally, the countries participating in the World Health Assembly have agreed to a Pandemic Influenza Preparedness Framework (WHA64.5), which obliges countries to share viruses with pandemic potential and is important for ECDC work to support pandemic preparedness.

EU Member States have agreed to have strong influenza immunisation programmes for the elderly and the risk groups - Council recommendation of 22 December 2009 on seasonal influenza vaccination (2009/1019/EU) and have agreed on the importance of strong immunisation programmes in general - the Council conclusions on vaccinations as an effective tool in public health of 1 December 2014.

Recent examples of the H7N9 influenza outbreak in China and the Middle East Respiratory Syndrome - coronavirus (MERS CoV) threats from the Arabic peninsula show the importance of the following, recurring topics:

- The need for strong surveillance systems for seasonal influenza and (re-)emerging respiratory viruses, including estimates of disease severity, serological profiles, molecular strains and resistance to anti-viral drugs.
- Monitoring the overall impact of seasonal, zoonotic and pandemic influenza.
- The need for a strong national reference laboratory network in the EU.
- Scientific guidance for various topics.
- Sustainable structures to promote vaccination by targeted communication efforts, and to assess vaccine effectiveness and safety by means of agreed protocols and multi-country studies.
- Active participation in global surveillance, laboratory, vaccine and research networks.

Given the nature of the diseases, international collaboration is vital, in particular with WHO-Europe, WHO-HQ and CDC's. Significant structures are already in place and they allow ECDC to perform its ongoing epidemiology, laboratory and molecular surveillance, and publish the influenza surveillance bulletin. ECDC has the experience and capacity to upscale for monitoring emerging viruses and produces timely assessments and options for risk management. Close collaboration with the new EMERGE Joint Action is envisaged when it comes to emerging respiratory virus outbreaks and with the H2020 I-MOVE+ project aimed at measuring the effectiveness and impact of influenza (and pneumococcal vaccines).

The Disease Programme also aims to improve the structure and organisation of EU-level vaccine impact monitoring, mainly by participating in the Innovative Medicines Initiative (IMI) project "ADVANCE" in close cooperation with the ECDC Vaccine Preventable Disease programme.

Objectives 2017

The key objectives of ECDC's disease programme Influenza and other Respiratory Viruses are:

1. Maintain and improve the weekly seasonal surveillance of influenza, in collaboration with the WHO Regional Office for Europe, by improving the analysis and presentation of data, expanding severe disease surveillance to more countries and exploring further utilisation of mortality monitoring data.
2. Enable early detection, monitoring, rapid risk assessment and scientific advice for zoonotic and other emerging respiratory viruses (including MERS-CoV and avian influenzas A(H5N1) and

A(H7N9)). Support WHO in early assessment of emerging outbreaks. Scoping the target audience and need of an EPIS for respiratory viruses.

3. Strengthen laboratory capacity through External Quality Assessments, training and coordination of early virus detection in the EU and antiviral susceptibility monitoring, in collaboration with the WHO Regional Office for Europe.
4. Support to monitor influenza vaccine effectiveness, coverage, and rapid risk assessments of safety signals in support of implementation of the Council recommendation of 22 December 2009 on seasonal influenza vaccination (2009/1019/EU) and the Council conclusions on vaccinations as an effective tool in public health of 1 December 2014.
5. Monitor and advance pandemic preparedness in the EU by supporting the European Commission and EU MS. Strengthening mechanisms for rapid pandemic severity assessments according to WHO GIP PISA process. Strengthening preparedness for rapid seroepidemiological studies and modelling for decision support. Review the evidence on effectiveness of non-pharmaceutical countermeasures against seasonal and pandemic influenza transmission.
6. Contribute to scientific excellence within ECDC and enhance the expertise of ECDC experts and associated networks. Enhance collaboration with clinical networks and learned societies.

Key Outputs 2017

1. Weekly high-quality (with established standards and definitions) and high-impact surveillance reports on FluNewsEurope.org during the season. Strengthened routine surveillance mechanism for monitoring of genetic and antigenic viral characteristics, severe respiratory disease, risk factors and influenza mortality (*ECDC strategic areas 1, 5 and 6²⁰*).
2. Timely and high-quality risk assessment and scientific advice on emerging respiratory pathogens (including MERS-CoV and avian influenza A(H7N9) and A(H5N1)) and support to international outbreak assessment missions (*ECDC strategic area 1, 2*).
3. External Quality Assessments for influenza or one emerging respiratory virus performed with successful results (*ECDC strategic area 3*).
4. Timely vaccine effectiveness estimates and vaccine coverage data available to stakeholders (*ECDC strategic area 2*). Three preparedness case studies or country visits done²¹ (*ECDC strategic area 3*). Literature review on effectiveness of non-pharmaceutical countermeasures done (*ECDC strategic area 1, 2*).
5. Production at least one peer review publication on the analysis and interpretation of data submitted to ECDC in Eurosurveillance or another journal (*ECDC strategic area 1, 6*). Presentations at least one international conference by each IRV expert.

Expected results / outcome

The activities will support the Member States by:

- Providing high-quality and high-impact influenza surveillance outputs for the European Region; producing timely and valuable risk assessments and scientific advice in regards to emerging respiratory pathogens and outbreaks;
- Strengthening laboratory capacity through External Quality Assessment exercises and training activities;

²⁰ See six strategic areas in chapter II.1 p 9

- Supporting national vaccination programmes/strategies by EU-level monitoring of influenza vaccine effectiveness and coverage;
- Enhancing pandemic preparedness in light of Decision 1082/2013/EU by promoting and enhancing tools and assessments for decision making;
- Contributing to the scientific understanding of IRV-related diseases by producing publications based on EU data reported to ECDC. The IRV Programme will continue to work in close collaboration with the WHO Regional Office for Europe and WHO Headquarters, particularly in the area of influenza surveillance, in order to add value for the Member States by continuing to develop a coherent system of European-wide surveillance of influenza.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources IRV: In the final version

Total FTEs for this activity: **7.11**
 Total operational budget title 3: **655,200 EUR**

6.6 Vaccine Preventable Diseases - VPD

The implementation of effective vaccination programmes has delivered impressive reductions in disease burden and improvements in public health. In order to continue this trend and safeguard the health of EU/EEA and global citizens, it is essential that these efforts are maintained. Challenges still remain in ensuring optimal prevention and control of VPDs. This is exemplified by episodes such as the recent outbreak of vaccine derived poliovirus in Ukraine, or the presence in the EU (clustered or scattered) of populations that are not vaccinated for childhood diseases, thus raising concerns of public health threat (see recent outbreaks of measles and rubella in EU/EEA Member States).

Strategic action plans aiming to the control, elimination or eradication of vaccine preventable diseases (VPD) have been developed in the last 15 years by WHO, ECDC, and European Commission and endorsed by Member States. Those of particular importance to ECDC's VPD work plan include:

- WHO's 60th Regional Committee for Europe (RC) resolution adoption to renew their commitment and accelerate actions to eliminate measles and rubella from the WHO European Region by 2015;
- WHO's 64th Regional Committee for Europe adoption of the European Vaccine Action Plan 2015–2020 (EVAP);

- The Global measles and rubella strategic plan 2012-2020 developed by WHO to support countries in reaching the elimination goal;
- the WHO Polio Eradication and Endgame Strategic Plan 2013–2018 approved by the World Assembly in 2012;
- WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use (GAPIII);
- The EU Council Conclusions in support of immunisation:
 - Childhood immunisation: successes and challenges of European childhood immunisation and the way forward;
 - Council Conclusions on vaccination as an effective tool in public health

In the long term, four new ECDC activities are foreseen in close collaboration with WHO HQ and WHO EURO to support MS in implementing the EVAP:

- a) Strengthen the collaboration with the National Immunisation Technical Advisory Groups (NITAGS) in order to create a platform for sharing scientific evidence on the introduction of new vaccines in national immunisation schedules;
- b) Publish technical guidance for those countries that plan to set up Immunisation Information Systems (IIS);
- c) Develop tools to address vaccine hesitancy and vaccine refusal in Europe;
- d) Provide advice in support of the implementation of vaccination programmes in hard to reach population and vaccination screening of migrants.

As support of the Global measles and rubella strategic plan, ECDC will continue in the next five years, in close collaboration with WHO EURO, to support the Member States in enhancing measles and rubella surveillance as well as in improving the quality and reliability of vaccine coverage data.

To sustain the activities towards the Polio eradication and endgame strategic plan, the Centre, in close collaboration with WHO EURO and WHO HQ, will support Member States in strengthening their preparedness plans, the AFP and environmental surveillance systems, as well as develop a poliovirus containment plan according to WHO GAPIII plan. These activities will continue until 2020.

Last but not least, as part of the Council Conclusions on vaccination as an effective tool in public health, ECDC will continue, together with the Member States, in setting up sensitive surveillance systems to effectively monitor the impact of vaccination, vaccine effectiveness and serotype replacement for priority diseases such as Invasive Pneumococcal Disease (IPD) and pertussis.

The programme's short- and long-term objectives need to be based on supporting and responding to the requirements of the above-described policy drivers.

Objectives 2017

The key objectives of ECDC's vaccine preventable disease programme activities are to:

1. Provide the European Commission and Member States with data and policy analyses as to support actions on VPDs in Europe to support the implementation of the 2014 Council Conclusions on Vaccination as an Effective Tool in Public Health as well as the 2011 Council Conclusions on Childhood Immunisation.
2. Strengthen EU-wide VPD surveillance and infrastructure for monitoring the impact and effectiveness of vaccination programmes, by developing methodologies for monitoring age specific vaccination uptake and immunity, and facilitating the implementation of national vaccination registries, including giving specific attention concerning the situation of vulnerable migrants, especially undocumented minors facing legal/practical obstacles to access childhood immunisation (*ECDC strategic area 1, 2, 3²²*).
3. Support Member States in strengthening their surveillance systems, as well as facilitating the sharing of knowledge and best practice with regards to immunisation and response to outbreaks of VPDs (*ECDC strategic area 1, 2, 4*).

²² See six strategic areas in chapter II.1 p 9

4. Support Member States in their efforts to monitor trends in vaccine acceptance and building public trust in vaccination programmes by providing tools and scientific advice, including activities specifically targeted to healthcare workers (*ECDC strategic area 1, 2, 4*).
5. Support Member States to strengthen prevention and control measures for the three diseases with elimination / eradication targets; namely measles and rubella, targeted for global elimination, and poliomyelitis, targeted for global eradication (*ECDC strategic area 1, 2, 3, 4*).
6. Better integrate molecular typing and disease surveillance, as well as strengthen laboratory performance for priority vaccine preventable diseases (*ECDC strategic area 1, 2*).
7. Build capacity in EU Member States through the implementation of training and preparedness activities (*ECDC strategic area 1, 2, 3*).
8. Continue to provide scientific advice in key areas on immunisation where policy options are needed (*ECDC strategic area 1, 2*).

Key Outputs 2017

1. Methodologies and guidance aimed to strengthen immunisation systems in the EU/EEA Member States under the umbrella of the VENICE project for both VPDs and influenza. This output is expected to streamline the process related to the development of new guidance on immunisation; set up and moderate a platform for sharing scientific products, mathematical models, literature reviews, etc.
2. Evidence-based guidance on priority diseases. 2017 will particularly focus on the ECDC guidance on pneumococcal vaccination in adults as well as HPV.
3. Interactive [ECDC ATLAS surveillance tool](#) with data and analyses on all vaccine preventable diseases incidence and rates in EU Member States
4. Data and analysis for measles and rubella (targeted for global elimination) on a monthly basis, as well as in-depth analysis reports twice during the year. In addition, develop a poliomyelitis page on the ECDC ATLAS surveillance tool to map AFP surveillance system data in relation with quality indicators
5. Actions aimed to coordinate and implement relevant preparedness activities, with special focus on poliomyelitis (targeted for global eradication), and technical support based on relevant needs identified.
6. Scientific studies and analyses aimed to support European Commission activities on the feasibility of a life-course approach to vaccination.
7. Consolidation of activities in the area of electronic immunisation information systems (IIS) contributing to the following key tasks:
 - Share generic advocacy materials for the promotion of IIS in EU Member States;
 - Develop definitions, technical specifications, check-lists, meta-data sets and other technical documents related to IIS;
 - Develop guidelines, handbooks and training materials on implementing IIS.
8. Scientific advice provided to the European Commission with regards to the following key activities identified by the *Council Conclusions on Vaccination as an Effective Tool in Public Health*:
 - Implementing actions concerning database updates, vaccine scheduler and vaccination registries

- Continue providing technical support as necessary and based on identified needs to address issues around vaccine shortages
 - Provide the European Commission with data and policy analysis on individual Member States concerning action on VPDs in migrant populations
9. Communication toolkits for healthcare workers supporting vaccination activities with a special focus on reaching vaccination-hesitant groups and piloting social marketing tools.
 10. Tools and scientific advice to support Member State capacity to monitor trends in vaccine acceptance and build public trust in vaccination programmes.
 11. Technical support to national health communication campaigns activities, notably by fostering the establishment of a European Vaccine Awareness Day, and by continuing to support the WHO Europe's European Immunisation Week through ECDC-relevant activities.
 12. Continued provision of data from active hospital-based sentinel surveillance systems for pertussis as well as for invasive pneumococcal disease continued in order to assess the impact and effectiveness of vaccines for both diseases, and serotype replacement for pneumococci.
 13. Provision of high quality epidemiological, laboratory and molecular surveillance for VPDs.
 14. Progress report on further implementation of meningococcal molecular surveillance
 15. Development of peer review publications based on outcomes and findings from analysis and interpretation of surveillance data
 16. Pertussis laboratory networks and their activities maintained such as EQAs, twinning exchanges and training workshops; EQA schemes for diphtheria diagnosis in EU Member States
 17. Coordination of the VPD Disease Network and further develop and cross-collaboration with international partners (e.g. WHO Regional Office for Europe, European Medicine's Agency) as well as input provided in cross-stakeholder initiatives of relevance such as the IMI ADVANCE project and other key projects under Horizon2020, such as IMOVE +
 18. Identification of skill gaps with regards to VPD Core Competencies by target group based on Member State needs in view of implementing relevant public health training activities

Expected results / outcome

- By the end of 2017 ECDC will have developed, together with its partners and stakeholders and in close alignment with the future vaccination policy of the European Commission, a structure to support Member States in sharing evidence-basis for vaccine programmes as well as a structure to monitor the impact and effectiveness of priority vaccines.
- ECDC will continue to be the credible source of scientific evidence on VPDs and vaccines.
- EU Member States will have access to communication toolkits built on peer-reviewed evidence and will have been provided support in developing systems for equitable access to vaccination.
- ECDC will be a source of excellence and support for strengthening the prevention and control of vaccine-preventable diseases in the EU/EEA and its Member States.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
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19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources VPD:

Total FTEs for this activity: **12.1**
Total operational budget title 3: **1,590,000 EUR**

6.7 Tuberculosis - TB

Context

The EU Member States, EEA countries and the candidate, potential candidate countries and the European Neighbourhood Policy countries have different tuberculosis (TB) epidemiological profiles: i.e. medium and high burden of (drug-resistant) TB; and low burden which permits to embark on the elimination of TB. Thus different approaches should be followed. In low burden settings, people at risk for TB are often found in vulnerable populations which may be difficult to reach with the standard models of care. Also, TB in migrants/refugees contributes to the epidemiology. In medium and high burden countries, TB is more often found in the general population. Diagnosing and treating patients is the main public health strategy. This requires sufficient human and financial resources and innovative strategies that allow for early case finding and optimal treatment.

The World Health Organisation has started to implement the global End TB Strategy, and in the European Commission there are ongoing discussions of a new joint HIV, TB and hepatitis policy document. Meanwhile, ECDC contributes to:

- The joint surveillance with WHO Europe and improvement and standardisation of data collection of all diagnosed TB patients with specific focus on treatment outcome results, molecular typing and HIV co-infection.
- Adequate laboratory services which take into account the different country profiles and resources. New diagnostic tests, including molecular typing are needed as well as support for national reference laboratories to ensure quality and timely diagnosis for all. This requires assessments, training, and guidance and scientific advice for strategic introduction into the sub-network.
- Optimal TB prevention and control with a focus on vulnerable groups²³. This asks for prompt identification, diagnosis and treatment of all individuals affected, including individuals with drug resistant TB. In low-burden countries this may imply efforts to maintain the necessary knowledge and infrastructure.

²³ Homeless people, people with drug or alcohol addiction, prisoners or people with a history of imprisonment, some vulnerable migrant/refugee populations, and Roma populations.

- Scientific advice and guidance²⁴ that supports Member States in prevention and control of TB.

The Advisory Forum has prioritised scientific advice on programmatic latent TB control, on interventions for TB prevention and control in hard to reach and vulnerable populations, on improving treatment outcomes for TB, on assessment of external completeness of TB notification data, and updating the European Union Standards for Tuberculosis Care.

To assist Member States with implementing the WHO End TB Strategy, and the potential new HIV, TB and hepatitis policy document of the European Commission, scientific advice on making TB prevention and control patient centred in the EU/EEA is needed. ECDC will provide technical support to the European Commission on developing and monitoring the implementation of an EU policy document on HIV, TB and hepatitis. ECDC will also collaborate with the TB Health Programme actions, in particular on TB standards of care, and on the development of country strategies, and monitoring.

For 2017 we foresee to finalise the scientific advice activities that were started in earlier years and we plan to start with the collection of the evidence for new scientific advice documents.

Objectives 2017

The key objectives of ECDC's TB activities are:

1. Strengthen TB (molecular typing²⁵ for) surveillance at national and EU level to reach an adequate coverage and completeness; the targets are specified in the monitoring and evaluation framework²⁶. (*ECDC strategic areas 1,3,4²⁷*)
2. Strengthen TB laboratory services for management of TB so that all TB suspects are tested with tests that allow for adequate and rapid diagnosis, and all TB cases are tested for drug resistance. (*ECDC strategic areas 1,3,4*)
3. Support TB prevention and care efforts especially in high burden Member States. (*ECDC strategic areas 1,3,4*)
4. Provide relevant scientific advice on TB prevention and control in support of the European Commission and the EU Member States. (*ECDC strategic areas 1,2,3*)
5. Provide technical support to the European Commission for the development of or monitoring of the implementation of an EU policy document. (*ECDC strategic areas 1, 2, 3*)

Key Outputs 2017

1. Coordination of the laboratory sub-network (European Reference Laboratory for Tuberculosis Network), with an annual network meeting.
2. Coordination of the surveillance sub-network, with an annual network meeting, production of the joint surveillance report with WHO.
3. Support to high priority countries with development and implementation of country strategies and activities for TB prevention and control.
4. Scientific advice on latent TB control as a programmatic intervention. The Centre foresees finalizing and disseminating the guidance document entitled "Introducing programmatic latent tuberculosis

²⁴ Guidance: a document based upon a systematic review of scientific evidence and on a scientific experts panel appraising the evidence and providing a list of options with regards to the potential benefits, costs and harms of measures, areas and level of uncertainty and recommendations for future research.

²⁵ Any activities related to molecular typing for TB surveillance are pending the revision of the roadmap for integration of molecular typing in surveillance

²⁶ European Centre for Disease Prevention and Control. Progressing towards TB elimination. Stockholm ECDC; 2010. Available from http://ecdc.europa.eu/en/publications/publications/101111_spr_progressing_towards_tb_elimination.pdf

²⁷ See six strategic areas in chapter II.1 p 9

control in the European Union and candidate countries". This document will provide scientific advice on who, when and how to diagnose and treat latent TB infection, as well as interventions to improve latent tuberculosis infection management (Related to objective 4).

5. Update of the European Union Standards for Tuberculosis Care (ESTC). The Centre foresees the start of activities related to the update of the ESTC, these include conducting an audit, collecting evidence base and completing the updated standards, including its dissemination in the EU/EEA.
6. Perform scientific analyses based on TESSy data.
7. Support to the European Commission with data and analysis on Member State level and with development or monitoring the implementation of policy document(s),

Expected results / outcome

These activities will support the Member States to:

- Adopt and implement global and EU level strategies and policies;
- Further harmonize and improve the quality of surveillance at national and European level;
- Improve laboratory services for the management of TB;
- Strengthen the national TB control efforts, especially in high-burden countries.
- Provide the Member States with the latest available evidence and guidance; and facilitate the exchange of best practises to improve TB prevention and control.

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
19	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control [ref. Objective 2017 - All].	Proportion of key outputs of the SPD 2017 achieved.	90%	Measured and verified by ECDC Management Information System
20		Satisfaction by the Member States on the value of the Disease Programmes	>80% satisfaction by two-third of the respondents	As measured by the survey DP evaluation report (when available)
21		Added value of the disease programmes is periodically evaluated	Each programme is evaluated every 5 years and a follow-up plan is made and executed.	DP evaluation report

Total Resources TB:

Total FTEs for this activity: **5.98**
 Total operational budget title 3: **599,200 EUR**

7. Management

7.1 General Management

Context

The general management of the organisation requires cohesion of the work described in all chapters. The main activities focus on cross-organisational issues like quality, project management and the implementation of the strategic multi-annual programme 2014-2020.

Dedicated efforts are the organisation of seamless communication with the Member States, the European Commission, notably through the governing bodies (MB and AF) and the National Coordinators of the coordinating Competent Bodies.

Although these activities shape the direction for the coming years, specific responsiveness is required and guided from the Director's Office. In particular, the implementation of the recommendations of the second external evaluation and the reduction of the burden for the Member States will be targets. Furthermore, leading the (re-)allocation of resources is a priority.

Depending on the recommendations of the Management Board in 2015 regarding the implementation of the external evaluation, at least the first half year of 2017 might require significant resources and attention to follow-up.

The development of an Enterprise Architecture (EA) Framework will contribute to a better internal cohesion and synergy by aligning the different processes and planning cycles in the Centre, and by streamlining decisions regarding e.g. technologies used for IT applications.

It is important that ECDC's products and communications are scientifically correct and impartial. As ECDC relies on many internal and external experts who together shape the scientific position of ECDC, it is necessary to have an Independence Policy in place that effectively and proportionally ensures transparency and dealing with potential and existing conflicts of interest. In 2017 the existing policy will have been revised, and the emphasis will be on timely and correct application of the policy. The review of the annual declarations of interest will be guided by the latest, more explicit risk analysis for ECDC. This risk analysis also serves to start collecting information on the proportionality of the resources involved.

Objectives 2017

The key objectives of the Director's Office activities are:

1. Finalise the coherent implementation of the recommendations of the second external evaluation.
2. Continue to re-engineer processes to improve ECDC's efficacy and efficiency.
3. Finalise development of an EA Framework
4. Monitor the implementation of the revised SMAP 2014-2020, i.e. SPD 2018.
5. Apply the independence policy in a proportional manner to the meetings organised by ECDC.
6. Coordinate the smooth implementation of Governance meetings (AF and MB).

Key outputs 2017

1. All recommendations of the second external evaluation are implemented (*ECDC strategic areas 1-5*)²⁸; progress will be reported in a summarising document to the MB.
2. All necessary processes are simplified as much as possible and clearly indicate the roles and responsibilities of actors (*ECDC strategic area 5*).

²⁸ See six strategic areas in chapter II.1 p 9

3. An organisation-wide EA Framework is agreed upon (*ECDC strategic area 5*)
4. The revised SMAP will be implemented within the SPD 2018-2020 according to the agreed milestones (*ECDC strategic areas 1-6*)
5. All DoI will be timely checked and an electronic submission and storage system facilitates the process (*ECDC strategic areas 1 and 5*)
6. AF and MB meetings are smoothly implemented (*ECDC strategic areas 4 and 5*).

Expected results / outcome

- Smooth general management of the Centre
- Efficient process to detect and address conflicts of interests
- Recommendations of the Second External Evaluation of ECDC fully addressed

Indicators

Nb.	Objective	Indicator	Target 2017	Verification
22	Implementation of the independence policy of the agency [ref. Objective 2017 - 5].	Proportion of approved annual and specific declarations of interest for delegates to Governing Bodies, ad hoc scientific panels, invited experts and ECDC staff members before participation to the specified activities as defined in the policy.	100 %	Report from the compliance officer

Total Resource Management:

Total FTEs for this activity: **15.0**
 Total operational budget title 3: **0 EUR**

7.2 Collaboration and Cooperation

Context

By its history and Founding Regulation one of ECDC's main characteristics is its operation as a network organisation, the hub of an EU "network of networks". Most of the disease prevention and control resources ECDC draws on – including all of the public health laboratories and many of the disease-specific experts – are in the Member States national public health institutes and associated academic environments. Linking with experts and resources in the Member States is therefore a vital core task of ECDC. In this respect the director's country visits aim to better understand the public health and policies and thus facilitate cooperation. The Centre's key partners in doing this are the Competent Bodies – ECDC's official national counterpart organisations, each of which has been formally nominated by its Member State. ECDC also nurtures the relationship with our host country Sweden.

ECDC is also part of the EU family of institutions and organisations. The Centre collaborates closely with other members of this family in order to ensure its actions are coherent with the EU's policy objectives and properly coordinated with those of other EU bodies. First and foremost among its partners within the EU family are the European Commission's Directorate-General for Health and Food Safety. The Centre also has contacts with other European Commission DGs, among which DG Research and DG

Enlargement, as well as other EU agencies, most notably the European Food Safety Authority (EFSA) and the European Medicines Agency (EMA). These collaborations will be enhanced and the potential synergies with further agencies will be explored. ECDC is active in the Heads of Agencies network and the assigned sub-networks with the aim to increase joint activities, common procedures and possible efficiency gains.

The European Parliament is also a partner for ECDC: the Director has an annual exchange of views with the Parliament's Committee for the Environment, Public Health and Food Safety (ENVI) and submits annual written reports to its Committee for Budgetary Control (CONT).

By 2017, we will be in the second year of the mandate of the new European Commission, which may result in policy changes that ECDC has to respond to. In a similar vein, new policy priorities may arise from the new European Parliament, the European Council and the regular meetings of EU health ministers within the EPSCO Council: some of these could also have implications for ECDC.

Objectives 2017

The key objectives of ECDC's collaboration within the EU family and with Member States are:

1. Further develop smooth, timely and efficient procedures for cooperation with the European Commission, in particular with a view to the practical consequences of Decision 1082/2013/EU.
2. Enhance the existing collaboration with EU agencies and explore possible synergies with further agencies.
3. Invest in maintaining appropriate relationships with the European Parliament, in particular the ENVI committee.
4. Foster feedback to improve communication and cooperation with the coordinating Competent Bodies.
5. Invest in even closer cooperation with our host country Sweden.

Key Outputs 2017

1. Activities of ECDC support and complement the work of DG SANTE and CHAFEA (*ECDC strategic areas 2-4*)²⁹
2. ECDC's collaboration with other EU agencies adds to synergy visible in joint reports, assessments and projects (*ECDC strategic areas 1, 2, 4 and 5*).
3. The EP is informed about ECDC activities and provided information in a format useful for making decisions (*ECDC strategic priorities 2 and 4*)
4. The regular dialogue with the Competent Bodies results in targeted and tailored support meeting the needs of the respective MS and providing outputs readily to be used for public health action in the MS (*ECDC strategic areas 2 and 4*).

Expected results / outcome

- Ensure continuous and smooth relationships with the European Commission, the EU Parliament and the other EU agencies;
- Consolidate relationships with the Member States through the Competent Bodies and with our Host country Sweden.

Indicators

²⁹ See six strategic areas in chapter II.1 p 9

Nb.	Objective	Indicator	Target 2017	Verification
23	Achievement of a high level of effective communication and coordination between ECDC and its Competent Bodies [ref. Objective 2017 - 4].	Satisfaction of the Coordinating Competent Bodies on the communication with ECDC	70 % satisfied with communication and coordination	Measure through dedicated surveys
24	Successful meetings achieved through the provision of enhanced and more cost effective organisational and substantive support. [ref. Objective 2017 - 4].	Level of satisfaction of representatives of Member States.	90 % of questionnaires completed provided ratings of very good to excellent.	Measure to be integrated into the questionnaire

Total Resources Cooperation and collaboration:

Total FTEs for this activity: **2.3**
Total operational budget title 3: **26,500 EUR**

7.3 Resource management

1. Context

The objective is to ensure that ECDC resources contribute to EU public health in the most efficient, effective, fair and transparent way. Considering that the availability of resources for disease prevention and control will be more limited, an even higher emphasis has to be placed on cooperation and collaboration at the EU level. In addition the closer scrutiny at both EU and national level will require ECDC to further demonstrate results and that it uses all the resources made at its disposal at their best; in other words get better value without compromising the quality of the Centre's achievements.

Due to the nature of the field of activity of the Resource Management and Coordination unit, some of the main long-term strategic goals remain relatively constant, e.g. to ensure the reliability of the accounts and the legality and regularity of the underlying transactions. However, it also requires for the administrative and operational processes supporting ECDC core activities to further gain in efficiency, be more focused and also more relevant. This challenge has to be addressed in a structured and collaborative way. Now that the foundations have been laid down, the focus will be on consolidation and continuous improvement. This includes continuing the clarification of roles, responsibilities, mutual expectations, increase knowledge sharing and support staff skills development. This will strengthen the Centre's abilities to make a difference in public health in Europe. It also means to, whenever possible, automate our processes to reduce the administrative burden, further ensure compliance and save our resources for even more added value activities.

Resources Management and Coordination's activities are an integral part of ECDC operations and in a cost-conscious, cooperative spirit and as openly as possible strive to effectively support operations in all areas of ECDC.

For Human Resources management the main point of attention is to further develop the staff performance process. The services by Human Resources continue to support the staff development, aiming at ensuring operational flexibility and sustainable good performance, as well as creating a

healthy work environment. Human Resources support and advice to the organisation is provided at a high professional level always ensuring compliance with the regulatory framework.

Most activities in Finance are ongoing actions to: 1) Ensure that the financial resources of the Centre are managed efficiently; 2) Provide the annual accounts of the Centre; 3) Ensure the preparation of draft, approved and amending budgets; 4) Perform financial initiation and ex-ante verification and 5) Provide financial advice and support to all Units of the Centre.

For Procurement, due to the procedure durations the aim is to maintain the involvement at the strategic level, at the very early stages the decision making process in close collaboration with the Centre Programming exercise. This proactive approach takes into account the realistic implementation timelines and ensures efficient delivery of the objectives; most importantly it will be much more effective, transparency and will ensure compliance for both internal and external control exercises. At the same time e-Administration and green procurement will continue to be the backbone of an ECDC Procurement activity development to foster innovation in the services and products offered by our suppliers.

Legal services will routinely address contract issues aiming for solid agreements and support staff with sound and practical advice in particular in the area of contract management. In addition, it will provide services and advice regarding the legal acts applicable to the work of the Centre and their consequences for ECDC policies and internal procedures. Furthermore, the work of the Data Protection Officer (DPO) will be kept in line with best practises as defined by the European Data Protection Supervisor (EDPS).

Internal control coordination contributes to ensure effective and efficient management of ECDC, and maintaining a good reputation among its stakeholders. Not only need the internal control systems be of high quality, but assessments, ex post controls and compliance reviews have to confirm their proper functioning.

The context for Performance Management is increasingly defined by the established practises across EU agencies and close cooperation within the Agencies network and the European Commission ensures coherent planning and performance management. Efficient project management, seamless and well-known internal processes and a further strengthened culture of quality management receive continuous attention. Regular feedback through internal evaluations is now in full operation, and from external stakeholders (through the stakeholder's consultations and input for the annual Work Programme) is increasingly fostered.

Most of the tasks of Corporate Services are ongoing and business as usual to ensure a functional, safe and comfortable workplace for all workers and visitors. The preparations for new premises are ongoing aiming for health, safety and security in an environmentally friendly and cost-effective way. The focus will be on monitoring the construction and fit-out phase, finalising the procurement for additional goods and services needed to timely taking possession of the new premises. Moreover, the space allocation and the removal plan should be completed. ECDC's missions and meetings consolidate the reformed services according to the vision and strategy developed in 2015 which form an important part to realise the Centre's functions as a network organisation.

Internal Communication and Knowledge Services provides supports the future of sharing, storing and retrieving information relevant for ECDC. Internal communication will ensure that all ECDC staff is informed timely and in an open and transparent manner on all activities, outputs and events handled by the institution in the scope of its mandate both during crisis and peace times. Making relevant information available should contribute to the engagement of staff, strengthen the sense of belonging and improve the quality of work. Knowledge services will continue to support the provision of e-health approaches and provide reusable content structures and actively support their interoperability and foster synergy. New and interactive tools and personalised information will be progressively offered.

Integrated filing and archiving systems as well as further developed workflows will ensure transparency, collaboration and active management of documentation and data retained.

The library will progressively support systematic reviews and establish an institutional repository for the curation of the scientific output of the Centre. Library services and standard reusable semantic assets support the scientific processes and maintain unity. Similarly internal communication complements external communication ensuring information sharing throughout the organisation, thus reinforcing the corporate culture.

Objectives 2017

The key objectives for resource management activities are:

1. Further optimise the performance of ECDC, in line with the recommendations of the EU network of agencies, aiming at the smooth implementation of operational activities and projects, and seamless flow of internal processes;
2. Consolidate and further optimise essential services and processes (e.g. excellence in the operations of Finance, Procurement, Missions and Meetings);
3. Follow up the construction and fit-out phase for the Final ECDC Premises finalising the procurement for additional goods and services and developing the removal plan;
4. Translate paper-based business processes into electronic workflows whenever possible, continuous transparency and communication support to allow for systematic access to relevant information;
5. Develop an effective operating model for emergency situations to ensure business continuity.

Key Outputs 2017

1. Final ECDC premises (*ECDC strategic areas 5 and 6*)³⁰
2. Improved roles and responsibilities definition across the processes and better visibility on ECDC staff use through enhanced time recording (*ECDC strategic areas 1, 5 and 6*)
3. ECDC project management methodology, better definition and monitoring of benefit realisations and further consolidation of quality management and evaluation systems (including the evaluation of two Disease programmes) (*ECDC strategic area 2 and 5*)
4. Further streamlining of ECDC procurement, mission and meeting and finance processes (*ECDC strategic area 5*)
5. Continuous and active participation to the network of the EU agencies and sub-network activities (*ECDC strategic area 4*)

Expected results / outcome

- Effectively support the smooth operation of ECDC main missions;
- Use of all the resources at the disposal of the Centre at their best to get better value without compromising the quality of the Centre's achievements;
- Ensure compliance with the EU and the Agency's legal obligations and regulations;

³⁰ See six strategic areas in chapter II.1 p 9

- Consolidate, whenever possible, the automation of processes to reduce the administrative burden, further ensure compliance and save our resources for even more added value activities.

Indicators³¹

Nb.	Objective	Indicator	Target 2017	Verification
24	Ensured best use of financial resources, timely correlated to the implementation of activities of the work programme. [ref. Objective 2017 - 1]	Percentage of budget committed (C1) and percentage of payments executed (C1) in the same year as the commitment Percentage of invoices paid within the time limits of the ECDC Financial Regulation Rate of cancellation of payment appropriations Rate of outturn	100% committed 80% paid 95% 5% 5%	Annual accounts Total payments in year N and carry-forwards to Year N+1, as a % of the total EU funding and fee income, where applicable, received in Year N)
25	Implementation of the <i>annual</i> work programmes, aligned with the SMAP in order to ensure the full implementation of the SMAP by 2020 [ref. Objective 2017 - 1]	Proportion of activities implementation of the Annual Work programme	85%	Verified via MIS
26	Ensured swift and timely fulfilment of the Agency's establishment plan correlated to the implementation of activities of the work programme [ref. Objective 2017 - 1]	Average vacancy rate	5%	% of authorised posts of the annual establishment plan which are vacant at the end of the year, including job offers sent before 31st December
		Percentage of staff satisfaction/engagement	75%	ECDC biannual staff survey
27	Timely improvements in the adequacy and effectiveness of internal control systems [ref. Objective 2017 - 1]	Rate (%) of external and accepted internal audit recommendations implemented within agreed deadlines (excluding 'desirable')	- 100% for critical observations - 90% for very important - 80% for important	Internal control

Total Resource Management:

Total FTEs for this activity: **70.1**

³¹ New indicators have been added to comply with the new recommendations from the European Commission for all EU decentralised agencies: [Guidelines on key performance indicators \(KPI\) for Directors of EU decentralised agencies, Brussels, 13 March 2015, SWD \(2015\) 62 Final](#)

Total operational budget title 3: **350,000 EUR**

7.4 Information and Communication technology

Context

Information and Communication Technologies (ICT) is a critical service for ECDC, for pursuing its missions, the Centre allocates ICT resources with two key objectives in mind:

- Enable ECDC's mission, by efficiently and effectively supporting the Centre's ICT needs for internal, European Commission and Members States users.
- Enable ECDC to continue improving the suitability, sustainability and best value for money of products and services.

ECDC's IT teams deliver a number of services that cover the following areas:

- Business support services (including advice and studies as well as business analysis, support to IT governance, ICT Quality);
- Software services (including enterprise architecture, software production, project management, urgent software development in public health emergencies);
- Hosting, operating, maintenance and security of applications and infrastructure (including 24/7 monitoring of critical systems, planning and management of hardware and software infrastructure);
- Hardware, software and services for the workstation (including management of back-end systems, networks, voice communications, desktop and mobile equipment and support to end users).

In fulfilling its core functions of surveillance, epidemic intelligence and response, the Centre acts as hub of a network of EU-wide networks in which intensive daily interaction takes place between ECDC and its partners across the EU, and indeed internationally. These interactions all require the use of ICT: in fact some of ECDC's best known services, such as TESSy, EPIS and the ECDC web portal, are heavily ICT dependent. It is also ECDC's legal duty to operate EU's Early Warning and Response System (EWRS) on public health threats. Regular maintenance and further evolution of these systems are vital investments for enabling ECDC core missions.

A non-exhaustive list of ICT products and services enabling the realisation of ECDC's mission is listed below.

System / application	Description
Early Warning and Response System (EWRS)	Supports critical communication of information and threat alerts between the European Commission, Member States, other EU Agencies and WHO.
Epidemic Intelligence System (EPIS)	Supports communication of public health events, threats and collaboration between surveillance networks of several disease programs (e.g. European Legionnaires' Disease Surveillance Network and others)
The European Surveillance System (TESSy)	Supports collection, validation, cleaning, analysis and dissemination of data for public health surveillance, provided by EU member states and other associated countries.
Threat Tracking Tool (TTT)	Supports the collaboration and management of public health threats, including the preparation of regular Communicable Disease Threats Reports and coordination in situations of Public Health Emergency.

System / application	Description
Emergency Operations Centre (EOC)	A set of ICT solutions that support an effective access to information and management of situations of Public Health Emergency.
ECDC web Portal	Supports an important part of the external communication, e.g. making available outputs for public health professionals, information for the public.
Surveillance Atlas of Infectious Diseases	Launched in 2014, this tool provides a highly interactive and graphical access to surveillance data. It is accessible via ECDC's web portal.
Eurosurveillance	Supports the edition and publication of Eurosurveillance, a European journal on communicable diseases with more than 11.000 active electronic subscribers.
ECDC Extranets	Support collaboration of public health networks, working groups and institutional bodies (MB and AF). Currently ECDC manages >20 extranets.
eLearning/LMS	Currently under implementation, will allow ECDC to make use of blended and pure e-learning capacities in support of its public health training activities.
Customer Relationship Management (CRM)	Supports a centralised management of MS and other external contacts.
Intranet	Tool for internal communication and support of internal processes.
Document Management System	Supports the management of electronic formats of documents, providing a single point of controlled access to documents in the Centre contributing to dematerialisation of paper based processes.
E-mail system	Supports electronic internal and external communication. It is a crucial component in support of many processes of the Centre and in communication with external entities.
Remote access to ECDC systems	Allows the continuity of work by ECDC staff when away from the Centre's premises, e.g. during missions and on stand-by duty.

The end users of the ICT products and services are both internal (ECDC end users) and external (Member States' contact points, Laboratories, European Commission, general public) and require ECDC service for assistance and technical support. The high reliability of these systems depending on technical infrastructures and on services that ensure proper operations and support, ECDC ensures that the necessary quality infrastructures are in place, including a reliable data centre, data communications, overall security, business continuity capabilities, as well as a disaster recovery site (under agreement with EASA).

In connection with the second key objective, ECDC created a central ICT Unit in 2012 to further improve the effectiveness and efficiency of resources, notably by means of governance, process efficiency, enterprise architecture and long term strategy.

The main focus of SMAP 2014-2020 is to adopt a General IT Governance framework in the centre, supporting sound managed decision making processes on all IT investments across the Centre. The alignment of the General IT governance of the Centre with the European Commission's IT governance standards will be assessed.

Another focus is to improve the maturity of ICT processes using as reference the CMMI³² model. In 2014 ICT processes were initially assessed level 1 and goals will be set for progressively reaching CMMI maturity level 2 and level 3 (out of five). Proper organisation of work and efficiency of work processes being key for ensuring good value for money, ICT commits doing this effort over time, in line with the recommendations of the Internal Audit Service to mature IT governance and processes.

The efforts to establish a corporate enterprise architecture framework and to define the IT enterprise architectural practice started in 2014.

It was complemented by a technology long term strategy initiative, started with collecting long-term requirements from business. The two quality initiatives are indispensable for enlightened IT design and investment decisions be made for fit for purpose, interoperable, scalable and maintainable systems, at the most effective cost.

In 2017, ICT will be responsible of the IT enterprise architecture area, excluding the overarching enterprise architecture responsibility and excluding the business and information areas.

Objectives 2017

The key objectives of ECDC's ICT activities are:

1. Enable ECDC operations by maintaining high availability of IT services (dedicated applications, databases, web portal) in regards to enterprise infrastructure services, back-end systems, hosting of applications under service level agreement, business continuity, disaster recovery and support to users of systems and services according to needs.
2. Maintain the existing systems as necessary for ensuring their reliability, their need to meet evolving business needs, and the need to be kept maintainable and interoperable with other systems overtime; maintain notably the EWRS in the light of decision 1082/2013/EU in close collaboration with the European Commission, including providing eventual requests for access.
3. Develop new core-business and administrative applications according to annual work plan, and deliver urgent developments in support to Serious Health Boarder Health Threat and PHE.
4. Ensure that processes are in place on main areas of work clearly indicating roles and responsibilities of all involved actors.
5. Develop a continuous improvement plan according to ECDC expected benefits, capacity and annual work plan.
6. Based on the ICT long term strategy, define the IT Enterprise Architecture roadmap.
7. Define the Technology Trend Watch function (observation of ICT trends in the industry).

Key Outputs 2017

1. Maintained and secure infrastructures and applications are hosted as per SLA requirements;
2. Existing systems are maintained as per ICT work plan commitments;
3. New systems are developed as per ICT work plan commitments;
4. Main processes are defined clearly indicating roles and responsibilities;

³² According to the CMMI Institute, Capability Maturity Model Integration (CMMI) is a process improvement approach that provides organizations with the essential elements of effective processes that will improve performance. It is the result of more than 20 years of evolution steered by Carnegie Mellon Software Engineering Institute, with participation of industry and public organisations.

5. A continuous improvement plan is defined for 2017 and actions implemented
6. Defined IT Enterprise Architecture roadmap
7. The "Technology Trend Watch" function is defined

Indicators

	Objective	Indicator	Target	Verification
28	Ensured agencies operations by maintaining constant availability of IT services elements to ensure a smooth running of the Centre's activities (dedicated applications, databases, web portal) [ref. Objective 2017 - 1]	Performance of ICT services in regards to: - availability of enterprise infrastructure services and backend systems, - availability of hosted applications under service level agreement (SLA), - proportion of ICT Front-Office incidents resolved as per SLA. [- Efficiency indicator to be defined later based on future exercises]	99% each 99% each 90%	Verified by regular monitoring reports

Total Resources ICT:

Total FTEs for this activity: **33.60**
 Total operational budget title 3: **5,010,000 EUR**

ANNEXES

Please note that all the annexes have been added in the document

Annex I: Resource allocation per Activity N+1 – N+3

Annex II: Human and Financial Resources (Tables) N+1 – N+3

Table 1 – Expenditure

Table 2 – Revenue

Table 3 – Budget outturn and cancellation of appropriations

Annex III:

Table 1 – Staff population and its evolution; Overview of all categories of staff

Table 2 – Multi -annual staff policy plan year N+1 – N+3

Annex IV:

A. Recruitment policy

B. Appraisal of performance and reclassification/promotions

Table 1 - Reclassification of temporary staff/promotion of officials

Table 2 - Reclassification of contract staff

C. Mobility policy

D. Gender and geographical balance

E. Schooling

Annex V: Buildings (table)

Annex VI: Privileges and immunities (table)

Annex VII: Evaluations (no template)

Annex VIII: Risks Year N+1 (no template)

Annex IX: Procurement plan Year N+1 (no template)

Annex X: Organisation chart year N+1 (no template)

Annex I: Resource allocation per Activity N+1 – N+3

Activities	2017		2018		2019	
	FTE	Total Budget	FTE	Total Budget	FTE	Total Budget
1. Surveillance and epidemic intelligence	28.3	5,119,432	28.3	5,396,130	28.3	5,589,943
2. Scientific support (including microbiology)	14.2	2,958,271	18.0	3,434,709	18.0	3,628,522
3. Preparedness and response	6.3	977,163	4.6	757,466	4.6	951,279
4. Training and capacity building	28.0	8,195,235	27.9	8,324,464	27.9	8,518,277
5. Communication	21.5	3,060,465	20.6	3,079,074	20.6	3,272,277
6. Disease programmes	62.7	15,393,459	62.6	15,672,906	62.6	15,866,719
7. Management and support**	121.0	22,338,643	120.0	21,203,371	120.0	21,203,371
Grand Total	282	58,042,668	282*	58,168,120	282*	59,331,000

* In 2018 and 2019, 2 posts to be cut (from 282 to 280) – *table to be updated once these posts are identified*

****Categorisation of staff (2015) according to the common benchmarking methodology** (*see table page 31*)

In accordance with the common methodology for all EU agencies' job screening (reflecting the rules set in the Financial Regulation), the Centre's operational staff makes up 75.2 % of the total staff. The overview given in the SPD for 2018 should be complemented with the results of the benchmarking exercise, which categorises functions according to agreed standards, e.g.:

- The External Communication function is considered to be a coordination role in accordance with the above mentioned methodology as long as it is not directly implementing the mandate of the agency. However, the Centre's communication activities and communication support to Member States form part of the Centre's mission and therefore need to be largely considered as operational activities.
- The operation of large data collection and management systems (such as TESSy, EWRS), requires a considerable IT contribution, which therefore also need to be considered operational.
- Part of the resource management activities is considered operational in line with the above mentioned methodology, e.g. operational procurement. Similarly, direct administrative support should inherit the categorisation of the work area, i.e. administrative support to operations is to be considered operational.
- Jobs in the area of Finance, non-operational procurement and quality management are to be considered neutral under the methodology.

Annex II: Human and Financial Resources (Tables) N+1 – N+3

Annex II: Table 1: Expenditure

Expenditure	N (2016)		N+1 (2017)	
	Commitment appropriations	Payment appropriations	Commitment appropriations	Payment appropriations
Title 1	32 722 265	32 722 265	30 115 000	30 115 000
Title 2	7 244 000	7 244 000	8 941 653	8 941 653
Title 3	18 281 385	18 281 385	18 986 000	18 986 000
Total expenditure	58 247 650	58 247 650	58 042 653	58 042 653

EXPENDITURE	Commitment and payment appropriations						
	Executed Budget N-1 (2015)	Budget N (2016)	Draft Budget N+1 (2017)		VAR N+1 (2017) / N (2016)	Envisaged in N+2 (2018)	Envisaged N+3 (2019)
			Agency request	Budget Forecast			
Title 1							
Staff Expenditure	30 372 185	32 722 265	30 115 000		-7.9%	31 471 000	31 500 000
11 Salaries & allowances	26 468 220	29 017 265	26 795 000		-7.6%	27 926 000	27 955 000
<i>- of which establishment plan posts</i>	<i>20 490 593</i>	<i>22 342 949</i>	<i>20 735 000</i>			<i>21 500 000</i>	<i>21 522 326</i>
<i>- of which external personnel</i>	<i>5 977 627</i>	<i>6 674 316</i>	<i>6 060 000</i>			<i>6 426 000</i>	<i>6 432 674</i>
12 Expenditure relating to Staff recruitment	451 986	385 000	370 000		-3.9%	460 000	460 000
13 Mission expenses	656 140	700 000	650 000		-7.1%	700 000	700 000
14 Socio-medical infrastructure	99 277	170 000	100 000		-41.1%	170 000	170 000

15 Training	385 109	400 000	400 000			400 000	400 000
16 External Services	2 256 685	2 010 000	1 765 000		-12.1%	1 775 000	1 775 000
17 Receptions and events	54 768	40 000	35 000		-12.5%	40 000	40 000
Title 2 Infrastructure and operating expenditure	6 901 930	7 244 000	8 941 653		+23.4%	8 415 120	7 680 000
20 Rental of buildings and associated costs³³	3 190 983	3 277 000	3 127 653		-4.5%	4 513 120	3 700 000
21 Information and communication technology	3 013 325	2 897 000	3 851 000		+32.9%	2 800 000	2 800 000
22 Movable property and associated costs	51 088	129 000	1 013 000		+685%	127 000	130 000
23 Current administrative expenditure	172 056	330 000	330 000			450 000	300 000
24 Postage / Telecommunications	215 604	251 000	261 000		+3.9%	250 000	250 000
25 Meeting expenses	258 874	360 000	359 000		-0.2%	275 000	500 000
26 Running costs in connection with operational activities							
27 Information and publishing							
28 Studies							
Title 3 Operational expenditure	17 701 076	18 281 385	18 986 000		+3.8%	18 282 000	20 151 000
to be specified by chapter	17 701 076	18 281 385	18 986 000			18 282 000	20 151 000
TOTAL EXPENDITURE	54 975 191	58 247 650	58 042 653			58 168 120	59 331 000

Detail for Title 3:

³³ Including possible repayment of interest; detailed information as regards building policy provided in Table in Annex III

Budget - Title 3		Unit_DP												
BL	*ARHAI	*EVD	*FWD	*HASH	*RTI/FLU	*RTI/TB	*VPD	DIR	ICT	OCS	PHC	RMC	SRS	Grand Total
3000	903,777	-		357,000	484,200		201,000						871,000	2,816,977
3001													177,446	177,446
3002	341,377	646,600	669,400	549,000	171,000	599,200	1,284,000			676,000		350,000	225,000	5,511,577
3003	80,000										3,957,000			4,037,000
3004	120,000						45,000				350,000			515,000
3005	30,000								5,010,000			-	120,000	5,160,000
3006	90,000				-		60,000			-	416,000			566,000
3007												88,000		88,000
3009								114,000		-				114,000
Grand Total	1,565,154	646,600	669,400	906,000	655,200	599,200	1,590,000	114,000	5,010,000	676,000	4,723,000	438,000	1,393,446	18,986,000

Activity Based Budget 2017:

SPD 2017:					
Strategies and groups	FTEs	Budget Title 1	Budget Title 2	Budget Title 3	Total Budget
1. Surveillance and epidemic intelligence	28.4	3,226,411	757,574	1,135,446	5,119,431
Surveillance	20.9	2,444,478	556,299	1,043,000	4,043,777
1. Public health surveillance	8.9	1,038,864	238,628	726,000	2,003,492
2. Molecular surveillance	1.5	170,715	40,188	27,000	237,903
3. Methods to support disease prevention and control	2.0	208,526	52,028	290,000	550,554
4. Management and administrative support	8.5	1,026,373	225,454	-	1,251,827
Epidemic intelligence	7.5	781,933	201,275	92,446	1,075,654
1. Epidemic intelligence	5.6	561,285	150,081	40,000	751,366
2. Rapid assessment of public health events	1.9	220,648	51,194	52,446	324,288
2. Scientific support	14.2	1,804,735	377,536	776,000	2,958,271
Scientific advice	9.1	1,092,614	241,630	700,000	2,034,244
1. Scientific advice coordination	2.2	256,405	58,365	157,000	471,770
2. Research coordination and studies	0.5	68,293	13,174	100,000	181,467
3. Scientific liaison activities	0.7	59,138	19,177	395,000	473,315
4. Management and administrative support	5.7	708,778	150,914	48,000	907,692
Microbiology support	5.1	712,121	135,906	76,000	924,027
1. Microbiology support	5.1	712,121	135,906	76,000	924,027
3. Preparedness and response	6.3	651,907	167,257	158,000	977,163
EU and countries preparedness support	1.2	138,974	31,350	68,000	238,324
2. EU preparedness	1.2	138,974	31,350	68,000	238,324
Response and emergency operations	5.1	512,933	135,906	90,000	738,839
1. Support to EU outbreaks	3.2	329,379	86,380	90,000	505,758
2. Emergency operations	0.3	33,361	8,338	-	41,699
3. Management and administrative support	1.5	150,193	41,189	-	191,382
4. Training and capacity building	28.0	2,987,501	747,235	4,460,500	8,195,235
Public Health Training	15.8	1,649,683	421,226	3,957,000	6,027,909
1. Fellowships EUPHEM -EPIET	6.7	609,357	177,595	3,542,000	4,328,952
2. Training networks	2.4	298,713	63,201	255,000	616,913
3. MediPiet	0.7	78,346	18,677	-	97,023
4. e-learning	2.1	219,063	55,030	100,000	374,093
5. Management and administrative support	4.0	444,204	106,724	60,000	610,928
Coordinated Country Support	7.4	866,205	196,772	416,000	1,478,977
1. Coordinated Country Support	4.4	518,211	117,563	413,000	1,048,774
2. Management and administrative support	3.0	347,994	79,209	3,000	430,204
International relations	4.8	471,613	129,236	87,500	688,349
1. Cooperation with the World Health Organisation (WHO)	0.1	11,623	1,668	-	13,290
2. Working with non-EU Countries	4.8	459,990	127,569	87,500	675,059
5. Communication	21.5	2,048,991	573,475	438,000	3,060,465
Public Health Communication	15.0	1,410,694	400,215	350,000	2,160,909
1. Press, media and Information services	3.6	320,676	95,551	245,000	661,227
2. Editorial services	3.0	264,679	80,210	-	344,889
3. Web portal and extranets	3.9	337,838	103,722	25,000	466,560
4. Translations	0.2	12,342	4,002	80,000	96,344
5. Country support on risk communication	0.2	14,075	4,002	-	18,077
6. Management and administrative support	4.2	461,085	112,727	-	573,812
Eurosurveillance	6.5	638,297	173,260	88,000	899,556
1. Eurosurveillance	6.2	589,481	166,256	88,000	843,737
2. Management and administrative support	0.3	48,816	7,004	-	55,819
6. Disease programmes	62.7	7,088,005	1,673,899	6,631,554	15,393,459
1. Antimicrobial resistance and healthcare-associated infections - ARHA	12.5	1,537,953	333,179	1,565,154	3,436,286
2. Emerging and vector borne diseases - EVD	5.7	603,285	151,248	646,600	1,401,133
3. Food- and Waterborne Diseases and Zoonoses - FWD	9.6	1,088,251	257,138	669,400	2,014,789
4. HIV, Sexually Transmitted Infections and viral Hepatitis - HSH	9.7	1,089,171	259,139	906,000	2,254,310
5. Influenza and other Respiratory Viruses - IRV	7.1	847,816	189,769	655,200	1,692,785
6. Tuberculosis - TB	6.0	592,912	159,419	599,200	1,351,531
7. Vaccine Preventable Diseases - VPD	12.1	1,328,617	324,007	1,590,000	3,242,624

7. General Management	121.0	12,057,451	4,644,693	5,386,500	22,088,643
Management	15.0	1,677,088	914,615	-	2,591,703
1. Strategic Advice	1.8	216,388	48,526	-	264,914
2. Ensuring independence	0.7	60,764	19,677	-	80,441
3. Organisation Governance meetings	2.7	243,543	271,038	-	514,581
4. Management and administrative support	9.8	1,156,394	575,374	-	1,731,767
Cooperation and collaboration	2.3	225,631	61,533	26,500	313,664
1. ECDC in the 'family' of European Institutions and Bodies	0.6	73,146	16,009	-	89,155
2. Working with the European Union Member States	1.7	152,484	45,524	26,500	224,509
Resources Management	70.1	6,643,136	2,656,338	350,000	9,649,474
1. Human Resources	14.4	1,289,826	383,206	-	1,673,031
2. Finance and Accounting	14.8	1,369,733	506,379	-	1,876,112
3. Legal and procurement	11.1	986,820	294,825	-	1,281,645
4. Quality management, project management and planning	4.6	572,268	247,733	-	820,000
5. Internal Control	1.0	185,964	43,681	-	229,645
6. Internal Communication and Knowledge Services	7.8	690,414	611,946	350,000	1,652,359
7. Corporate Services	12.2	1,068,933	456,509	-	1,525,442
8. Management and administrative support	4.2	479,178	112,060	-	591,239
ICT	33.6	3,511,596	1,012,207	5,010,000	9,533,803
1. Software services	11.8	1,055,925	416,276	2,197,045	3,669,246
2. Hosting, operating, maintenance, administration and security of ap	11.0	1,182,024	293,491	2,610,378	4,085,893
4. Management and administrative support	10.8	1,273,647	302,440	202,577	1,778,664
Total	282.0	29,865,000	8,941,668	18,986,000	57,792,668
SNEs	5.0	250,000			250,000
Grand Total	287.0	30,115,000	8,941,668	18,986,000	58,042,668

Annex II: Table 2 – Revenue

Revenues	N (2016)	N+1 (2017)
	Revenues estimated by the agency	Budget Forecast
EU contribution	56 766 000	56 766 000
Other revenue	1 481 650	1 276 653
Total revenues	58 247 650	58 042 653

REVENUES	N-1 (2015)	N (2016)	N+1 (2017)		VAR N+2 (2018) /N+1 (2017)	Envisaged N+2 (2018)	Envisaged N+3 (2019)
	Executed Budget	Revenues estimated by the agency	As requested by the agency	Budget Forecast			
1 REVENUE FROM FEES AND CHARGES							
2. EU CONTRIBUTION	53 391 906	56 766 000	56 766 000			56 766 000	57 901 000
of which Administrative (Title 1 and Title 2)	36 199 713	38 952 830	38 231 800			38 924 446	39 123 706
of which Operational (Title 3)	17 192 193	17 813 170	18 534 200			17 841 554	18 777 294
of which assigned revenues deriving from previous years' surpluses	0	3 083 000	5 079 603			0	0
3 THIRD COUNTRIES CONTRIBUTION (incl. EFTA and candidate countries)	1 583 285	1 481 650	1 276 653			1 402 120	1 430 000
of which EFTA	1 583 285	1 481 650	1 276 653			1 402 120	1 430 000
of which Candidate Countries							
4 OTHER CONTRIBUTIONS							

of which delegation agreement, ad hoc grants						
5 ADMINISTRATIVE OPERATIONS						
6 REVENUES FROM SERVICES RENDERED AGAINST PAYMENT						
7 CORRECTION OF BUDGETARY IMBALANCES						
TOTAL REVENUES	54 975 191	58 247 650	58 042 653		58 168 120	59 331 000

Annex II: Table 3 Budget outturn and cancellation of appropriations

Calculation budget outturn

*N – the year covered by the programming document drafted in N-1

Budget outturn	N-4* (2013)	N-3* (2014)	N-2* (2015)
Revenue actually received (+)	59 216 000	58 707 000	59 182 000
Payments made (-)	43 448 000	49 083 000	45 002 000
Carry-over of appropriations (-)	11 338 000	11 634 000	11 116 000
Cancellation of appropriations carried over (+)	1 143 000	1 069 000	1 254 000
Adjustment for carry over of assigned revenue appropriations from previous year (+)	102 000	775 000	495 000
Exchange rate differences (+/-)	-2.3480000	+3 250.000	+266 000
Adjustment for negative balance from previous year (-)	-1.314 000	0	0
Total	2 013 000	3 083 000	5 079 000

Descriptive information and justification on:

- Budget outturn,

The Centre cashed its full budget of EUR 58.451.950 in 2015.

The expenditures of 2015, including the carry-forward to 2016, equals to EUR 56.119.471,45.

The amount of cancelled unused payment appropriations carried forward from previous year of EUR 1.254.165,65, the adjustment for carry-over from the previous year of appropriations available at 31.12 arising from assigned revenue of EUR 495.922,41 and the exchange rate gains for the year 2015 of EUR 266.683,57 have resulted in a positive budget outturn 2015.

As a result of the above, EUR 5.079.603,75 has to be reimbursed in 2016 to the EU budget (as assigned revenue) related to the Centre's 2015 budget.

- Cancellation of commitment appropriations,

The total implementation of commitment appropriations for ECDC in 2015 reached 94.05% whilst 3.476.758 € were cancelled for all three Titles.

The major part of the cancellations occurred in Title 1 Staff Expenditure, namely of 2.080.000 € related to salaries and allowances.

A total of 2 080 000 € could not be used due to unforeseen events. Of this amount, a total of 1.080.000 € was not spent due to the decrease in the weighting factor. Furthermore, the pending appointment, and subsequent vacancy, of the Director influenced a delay in a number of senior post recruitments. There was also a delay in the development of the agencies model implementing rules for reclassification of staff (which was only sent to agencies just before year end 2015) which meant that no budget was spent for reclassification of staff in 2015. These two aspects represented 1.000.000€, which accordingly was not used.

The impact of the correction coefficient will remain to be an unknown and unpredictable macro-economic part of the ECDC's budget planning and its execution accordingly. This is due to the fact that the correction coefficient applied to the salaries in Sweden, is driven, to a large extent, by the fluctuations of the Swedish krona. Between 2010 and 2013 the Centre, by being situated in Stockholm, Sweden had one of the biggest increases in the correction coefficient in comparison to other EU countries and cities – from 118.6 in 2010 to 132.9 in 2013. As from 2014 the correction coefficient has decreased and the current correction coefficient is 127.9. This shows the unpredictability of the correction coefficient which can have a big effect either by leaving the Centre with too much budget or too little budget in Title 1. Since the Centre is required to put forward its draft budget two years before the correction coefficient is known and with the new programming requirements for an additional three years, it's a challenge to have an accurate estimate for budgetary purposes.

Due to the above cancellations of commitment appropriations in Title 1, the total implementation of commitment appropriations for 2015 fell slightly below 95%, as well as for the payment appropriations for non-differentiated appropriations. As a result and taking in account the agency instructions for the

preparation of the DB 2017, ECDC may be subject to a cut of 4%. However, one of the main reasons why the total implementation decreased to below 95% is that the appropriations foreseen to be used for the weighting were not used or de-committed at the end of 2015, according to the Financial Regulation of ECDC (Art. 14 & 70). ECDC cannot be held responsible for the fluctuation of the exchange rate regarding which determines the weighting factor for Sweden, therefore the budget reduction should not be applied to ECDC. More importantly ECDC is relocating to new premises early 2018, for which ECDC needs to pay without an additional EU contribution for 2017 and 2018. The building project as such with its planned substantial increase of 2.5 million € for Title 2 in 2017 can only be finance by ECDC, if our budget is not subject to any budgetary cut. As a consequence, ECDC requests its full EU contribution of 56.766.000 € for 2017.

- Cancelation of payment appropriations for the year

See cancelation of commitment appropriations

- Cancelation of payment appropriations payment appropriations carried over,

The Centre had carried forward 11.138.018 € from 2014 to 2015, of which the amount of 9.883.852 € was paid (fund source C8 in 2015). This corresponds to 88.74% of the amount carried forward.

Annex III. Table 1 – Staff population and its evolution; Overview of all categories of staff

Staff population		Actually filled as of 31.12.2014 ³⁵	Authorised under EU budget 2015	Actually filled as of 31.12.2015 ³⁴	Authorised under EU budget for year 2016	n draft budget for year 2017	Envisaged in 2018	Envisaged in 2019
Officials	AD							
	AST							
	AST/SC							
TA	AD	122	131	112	129	127	126	126
	AST	61	59	59	57	55	54	54
	AST/SC							
Total		183	190	171	186	182	180	180
CA GFIV		45	49	49	49	50	50	50
CA GF III		35	37	38	37	38	38	38
CA GF II		12	12	10	12	10	10	10
CA GFI		2	2	2	2	2	2	2
Total CA		94	100	99	100	100	100	100
SNE		3	5	2	5	5	5	5
<i>Structural service providers</i>		15		12				
TOTAL		295		284				
<i>External staff for occasional replacement</i>		27		33				

³⁴ Post filled at 31.12.2015 include 12 offers made and accepted (3 AD, 5 CA IV, 2 CA III and 2 SNE).

³⁵ Post filled at 31.12.2014 include 3 offers made and accepted (1 AD and 2 CA II).

Annex III: Table 2 – Multi-annual staff policy plan Year N+1-Year N+3

Category and grade	Establishment plan in EU Budget 2015		Filled as of 31/12/2015 ³⁶		Modifications in year N-1 in application of flexibility rule		Establishment plan in voted EU Budget 2016		Modifications in year N in application of flexibility rule		Establishment plan in Draft EU Budget 2017		Establishment plan 2018		Establishment plan 2019	
	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA	officials	TA
AD 16																
AD 15		1						1				1		1		1
AD 14		6						7				5		5		5
AD 13		5		1				6				10		10		10
AD 12		8		4				10				12		17		17
AD 11		14		4				16				18		19		19
AD 10		22		5				23				24		25		25
AD 9		25		10				25				25		24		24
AD 8		19		33				19				18		17		17
AD 7		18		1				16				13		8		8
AD 6		13		14				6				1				
AD 5				40												
Total AD		131		112				129				127		126		126
AST 11		2						2				2		2		2

³⁶ Post filled at 31.12.2015 include 3 offers made and accepted (2 AD 5, 1 AD 8)

AST 10		2						3				4		5		5
AST 9		2						3				4		5		5
AST 8		6						7				8		9		9
AST 7		10		4				11				12		13		13
AST 6		15		2				16				16		15		15
AST 5		17		12				14				9		5		5
AST 4		5		28				1								
AST 3																
AST 2				5												
AST 1				8												
Total AST		59		59				57				55		54		54
AST/SC1																
AST/SC2																
AST/SC3																
AST/SC4																
AST/SC5																
AST/SC6																
Total AST/SC																
TOTAL		190		171				186				182		180		180

Annex IV:

A. Recruitment policy:

Temporary agents

Type of key functions

The establishment table focuses on the core functions of the Centre: the temporary agents. Temporary agents are foreseen to form the core capacity, that is, operating the Centre; and in addition, contract agents are recruited with a primary focus on support functions and junior experts.

Of key importance when building up, and from 2011 onwards, when reaching the full capacity of the Centre, is the recruitment of highly qualified professionals in operational as well as in administrative and management functions. This is especially important, since ECDC is to be a Centre of excellence in a 'knowledge sector'. Moreover, the Centre needs to cover a broad range of specialist areas (including specialists in 55 diseases and conditions, and broad public health functions such as emerging infection, health determinants, burden of disease, training, response capacity, preparedness planning and disease surveillance and monitoring) which makes it essential to have access to a solid and broad basis of the best professionals. Many positions are expert posts, specialised in specific fields of public health such as epidemiology. The epidemiological resources in Europe, at senior level, are limited and therefore it is important to offer appropriate incentives and attractive conditions.

The establishment table reflects the heavy emphasis on building up internal capacity and attracting the best experts in the fields of competence of the Centre. Hence, broadly, two thirds of the temporary agent posts are identified at administrator (AD) level, the majority of the posts intended for technical experts in areas such as public health and epidemiology. The large number of AD staff is seen as possible since a support capacity is built up around temporary agents on assistant (AST) level for the core support functions. Another important part of the Centre's administrative support capacity relies on contract agents.

[Selection procedure](#)

The selection procedure for temporary agents follows the Centre's implementing rules on temporary agents which is the model implementing rules for all agencies. In this implementing rule it's a provision for internal selection which the Centre uses. The Centre's aims at carrying out recruitment processes in an objective, transparent and highly efficient manner, respecting the candidate confidentiality as well as recruitment ethics. The focus is on recruiting and selecting the best candidates with a high level of professional competency and motivation. Selection committees consist of at least three members including a representative of the staff committee and take into account gender and geographical balance as well as unit belonging.

Entry grades

Temporary agents are recruited at the levels of AST 1 to AST 4 for the assistant (AST) category and at the levels of AD 5 to AD 8 for the administrator (AD) category.

Temporary agents at the level of Head of Unit are mainly recruited at the AD 11 grade. Deputy Heads of Unit are recruited mainly at grade AD 10. Recruitment of temporary agents at grades AD 9, AD 10 and AD 11, or on an exceptional basis, AD 12, remains within the 20% limit of the total of AD posts recruited annually over a five-year period.

The balance between expert and senior expert staff (AD 5 and AD 8) is in line with the objective to attract experienced senior experts while at the same time aiming at recruiting experts who can grow professionally along with the Centre. This will enable the Centre to have a well-balanced staffing as to assure that activities are carried out with the view of providing the best expertise as well as to secure business continuity.

When recruiting staff, the Centre may consider when possible to use the full range of grades as provided for in the statutory provisions.

Taking into consideration that the Centre focuses on recruiting many contract staff in supportive functions, it is the aim of having experienced senior administrative support staff (AST 4 and above) to coordinate the contract staff.

Contract duration

The contract duration for temporary agents is initially five years with a possibility of renewal of an additional five years and a possible second renewal resulting in a contract of indefinite duration. Temporary agent posts are normally identified as posts of possible long-term employment.

At its expiry each contract is considered, on a case-by-case basis, for possible renewal taking into account in particular the identified requirements from the work programme.

Job profiles

The Centre's temporary agents are mainly recruited for:

- operational posts (technical experts in the operational units);
- management posts;
- sensitive posts in administration, e.g. human resources, legal, finance, ICT.

The Centre's temporary agents are mainly employed for following posts and corresponding entry grades:

AD 5 - 7	Experts operational units etc;
AD 8	Senior Experts in operational units, Heads of Section, etc;
AD 10	Deputy Heads of Unit, Senior Experts in specific areas (External relations etc);
AD 11- 12	Heads of Unit;
AST/SC 1	Secretaries;
AST 4	Procurement Officers, Human Resources Officers, Information Officers, etc.

Contract agents

The Centre's contract agents are mainly in the administrative unit, in projects and programmes. The ones in supportive functions are important in order for the organisation to focus on the core tasks. The ones in operational functions are crucial for the development of short term operational projects as well as ensuring junior technical support in the long term operational disease programmes.

The basic rules for contract agents are formulated in the Centre's contract agent policy as well as the implementing rules on engagement and use of contract staff based on the model decision.

Selection procedure

The selection procedure for contract agents follows the Centre's implementing rules which is the model decision for agencies. The Centre's aims at carrying out recruitment processes in an objective, transparent and highly efficient manner, respecting the candidate confidentiality as well as recruitment ethics. The focus is on recruiting and selecting the best candidates with a high level of professional competency and motivation. Selection committees consist of at least three members including a representative of the staff committee and take into account gender and geographical balance as well as unit belonging.

Functions and Contract duration

Contract agent functions are defined according to two main categories: long term functions and short term function as follows:

- Long term functions are assistant/officer posts in administrative support functions (financial assistants, assistants in mission & meetings, human resources assistants, assistant secretaries, legal officers, web editors, editors etc) and junior experts in operational programmes of long term nature;
- Short term functions could be posts for projects.

The contract duration is set as follows:

- long term contracts have an initial duration of five years, with a possibility for a renewal of additional five years. A possible second renewal leads to an indefinite contract.
- short term contracts have a duration dependent on the nature of the function, and can be either two years with a possibility for a renewal of up to two additional years, or three years with a possibility for a renewal of up to three additional years. The maximum duration of the contract is four or six years accordingly.

At its expiry each contract is considered, on a case-by-case basis, for possible renewal taking into account in particular the identified requirements from the work programme.

Job profiles

The Centre's contract agents are mainly recruited for:

- administrative support functions;
- junior experts in operational programmes;
- projects;

Contract agents are recruited within Function Group I – IV, precise grading being determined by the experience of the appointed candidate, in accordance with Staff Regulations and the applicable implementing rules.

The Centre's contract agents are mainly employed in following posts and corresponding grades:

- FG I Logistics assistants, etc;
- FG II Assistant Secretaries, etc;
- FG III Financial Assistants, Human Resources Assistants, Travel/mission Assistants Information Assistants, etc.;
- FG IV Junior Experts in operational programmes/projects, Junior ICT developers, Editors, Legal Officers etc.

Seconded national experts

Article 29 (3) of the Centre's founding regulation provides for the following: 'Secondment to the Centre of public health experts, including epidemiologists, for a defined period of time, for the achievement of certain specified tasks of the Centre will be encouraged within the framework of existing regulations.' On this basis, the Centre has adopted a decision laying down the rules concerning seconded national experts at ECDC which was revised in 2009 to take into account the changes adopted by the European Commission and deemed relevant for the Centre.

SNEs are considered an important resource bringing expertise in specific areas within the Centre's mandate and facilitating the development of links with Member States. Seconded National Experts coming to the Centre are mainly at Senior Expert level working on operational activities.

Structural service providers

Structural service providers (consultants) are brought in to carry out and strengthen ICT projects and tasks supporting the general functioning of the agency. This includes general support functions such as ICT infrastructure (ICT front office and back office) as well as projects for software development and implementation of administrative IT systems.

Through an open call for tender, the Centre has entered into 7 framework contracts (3 until 2016, and 4 until 2018).

Interims are used to temporarily cover replacements due to maternity, parental and sick leave, vacancies and in exceptional circumstances for support functions in peak periods. Through an open call for tender, the Centre has entered framework contracts with interim agencies (two lots with two agencies per lot, until 2017).

B. Appraisal of performance and reclassification/promotions

Table 1 - Reclassification of temporary staff/promotion of officials

Category and grade	Staff in activity at 1.01.Year N-2		How many staff members were promoted / reclassified in Year N-1		Average number of years in grade of reclassified/promoted staff members
	officials	TA	officials	TA	
AD 16					
AD 15					
AD 14					
AD 13					
AD 12					
AD 11					
AD 10					
AD 9					
AD 8					
AD 7					
AD 6					
AD 5					
Total AD					
AST 11					
AST 10					
AST 9					
AST 8					
AST 7					
AST 6					
AST 5					
AST 4					
AST 3					
AST 2					
AST 1					
Total AST					
AST/SC1					
AST/SC2					

AST/SC3					
AST/SC4					
AST/SC5					
AST/SC6					
Total AST/SC					
Total					

Table 2 -Reclassification of contract staff

Function Group	Grade	Staff in activity at 1.01.Year N-2	How many staff members were reclassified in Year N-1	Average number of years in grade of reclassified staff members
CA IV	18			
	17			
	16			
	15			
	14			
	13			
CA III	12			
	11			
	10			
	9			
	8			
CA II	7			
	6			
	5			
	4			
CA I	3			
	2			
	1			
Total				

The agency is in the process of adopting the model implementing rules developed by the European Commission in collaboration with the agencies on Reclassification; one implement rule for Temporary Agents and one for Contract Staff. The agency expected these rules to be ready already in 2015 and accordingly waited to carry out the reclassification. Reclassification will be carried out in 2016.

C. Mobility policy

a) internal mobility along with quantitative evolution;

In 2015, 20 % of vacancies (3 out of a total of 15) were filled by internal staff.

b) mobility between agencies

In 2015, three staff members left ECDC to be employed by another agency. In total, the Centre now has 26 staff members who previously worked for an EU agency (25 who directly joined ECDC from another agency and 1 who previously worked in another agency, but did not join ECDC directly after employment with that agency).

c) mobility between agency and Institutions.

In 2015, one post was filled with staff from the institutions (European Commission including its missions, representations and executive agencies). In total, ECDC now has 20 staff members who previously worked for an EU institution (15 who directly joined ECDC from an institution and 5 who previously worked in an institution, but did not join ECDC directly after employment with that institution).

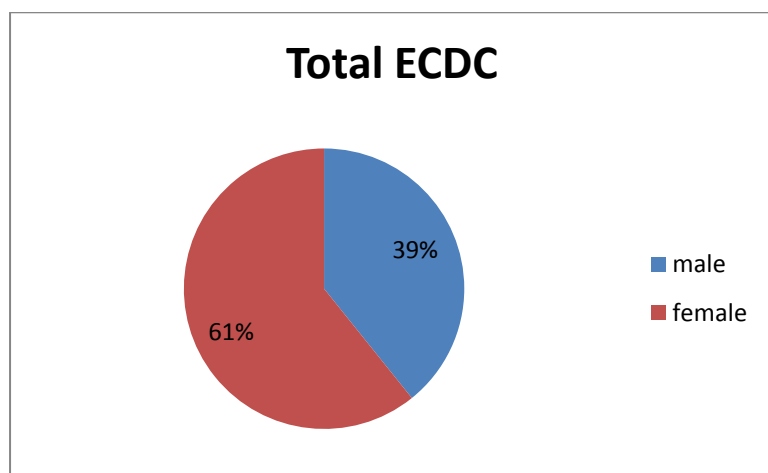
D. Gender and geographical balance

Gender balance

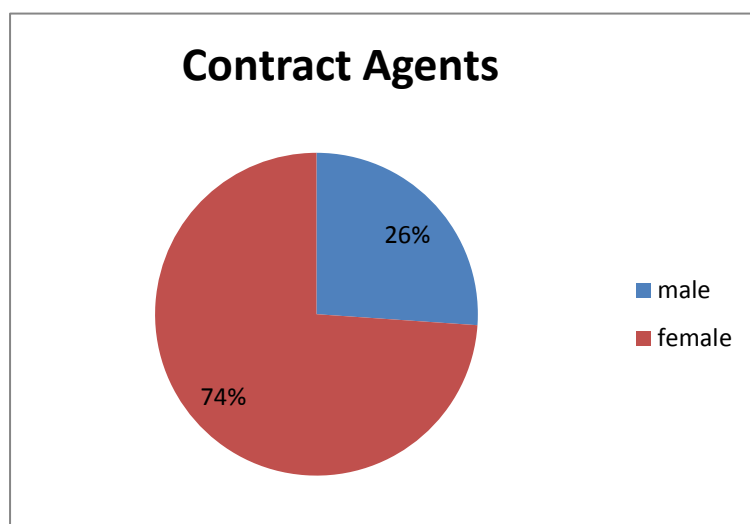
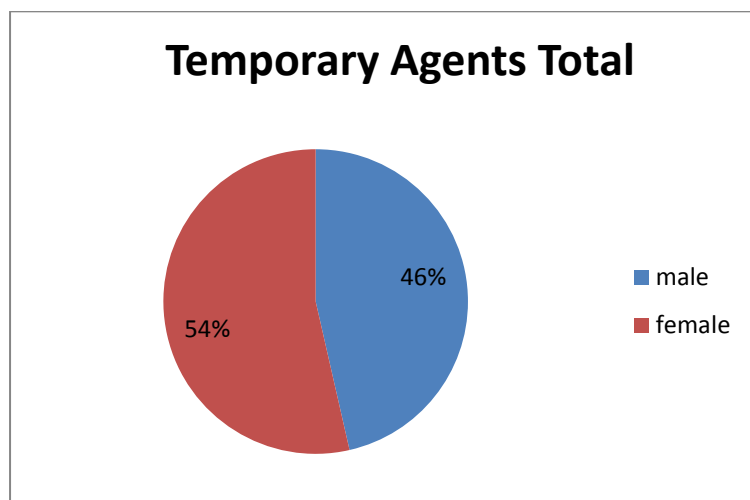
The gender balance in the Centre as of 31 December 2015 is as follows (offers not included):

	CA	AST	AD	Total TA	Total ECDC
male	24	17	61	78	102
female	68	42	48	90	158
Total	95	61	129	190	260

In total, the Centre employs 61% women and 39% men (TAs and CAs).



The gender balance within the different contract types is for temporary agents 54% women and 46% men.



The gender balance is considered as important, and is taken into account by the appointing authority in recruitments. One of the organisational HR objectives is to further strengthening the gender balance in management positions (Proportion of women in the new appointments to Management posts (Director/Heads of Units/Deputy Heads of Units/Heads of Sections) is aimed to be 50 %). The current gender balance in this category is 38% women and 62% men.

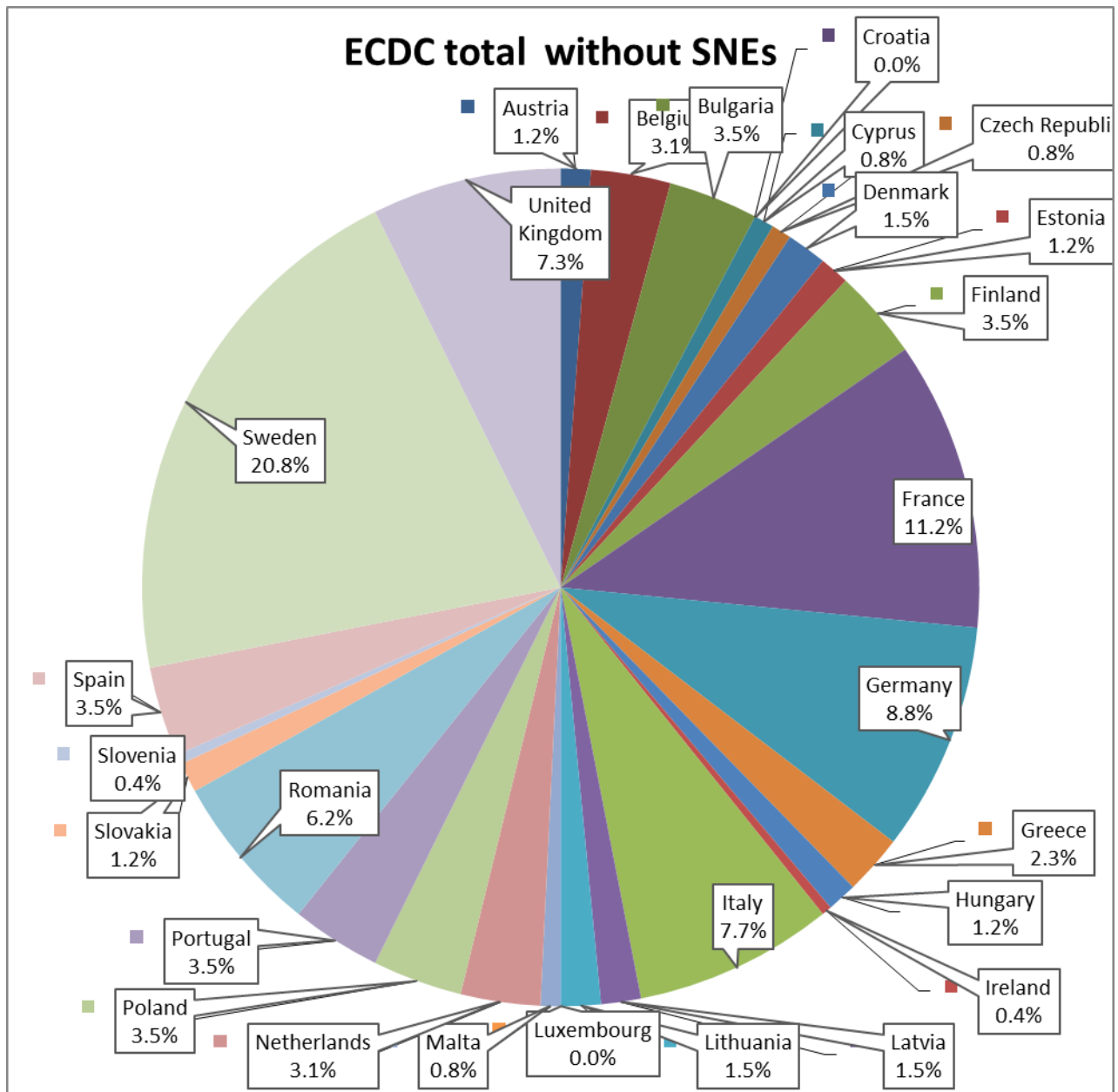
Moreover, the gender balance is taken into account when appointing selection committees in recruitment processes as to further strengthen the view of both genders and encourage a mixed collaboration in the important work of finding the most competent candidates.

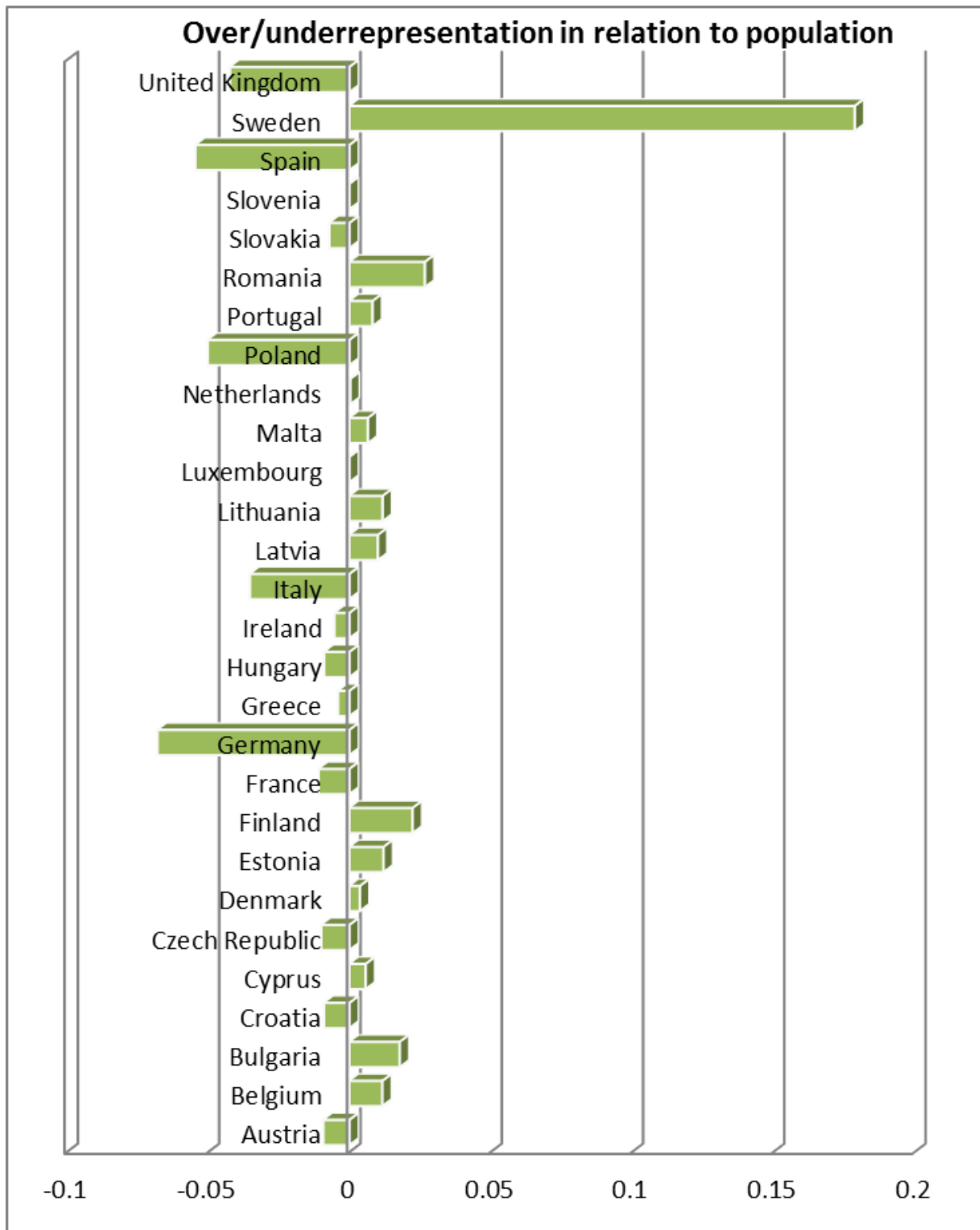
The Centre is fully committed to the provision of equal opportunity for its entire staff through its employment practices. It is aiming at developing an environment taking into account diversity and ensuring that no one is treated inequitably due to gender, marital status, age, nationality, sexual preference or religion. This is done through a series of measures including statements in vacancy notices, as mentioned above in composition of selection committees, conditions of work (e.g. flexitime, teleworking policy, part-time).

Nationality balance

On 31 December 2015, ECDC employs staff from 26 member states (offers not included):

Nationality	AST	AD	TA Total	CA	SNE	ECDC total
Austria	0	1	1	2		3
Belgium	0	7	7	1		8
Bulgaria	2	4	6	3		9
Croatia	0	0	0	0		0
Cyprus	1	0	1	1		2
Czech Republic	0	1	1	1		2
Denmark	2	1	3	1		4
Estonia	0	0	0	3		3
Finland	1	7	8	1		9
France	5	15	20	9		29
Germany	7	12	19	4		23
Greece	0	4	4	2		6
Hungary	0	3	3	0		3
Ireland	1	0	1	0		1
Italy	5	10	15	5		20
Latvia	1	2	3	1		4
Lithuania	2	0	2	2		4
Luxembourg	0	0	0	0		0
Malta	0	2	2	0		2
Netherlands	2	4	6	2		8
Poland	3	1	4	5		9
Portugal	1	4	5	4		9
Romania	7	3	10	6		16
Slovakia	0	1	1	2		3
Slovenia	0	1	1	0		1
Spain	2	3	5	4		9
Sweden	12	15	27	27		54
United Kingdom	5	8	13	6		19
Total	59	109	168	92	0	260





E. Schooling

There are a number of alternatives regarding international schooling within the region where the Centre is situated (international schools, German, British, French, Finnish schools). There is no European school in Stockholm.

Public schools, whether Swedish or international, are free of charge. Private school fees are high; although national grants per student reduce fees. However, the private International School situated in the Stockholm City Centre charges very high fees and the double educational allowance only covers a minimal part of the fees of this school.

There has been no special agreement set with any particular school.

It should be noted that the seat agreement between the Centre and the Swedish government provides for the possibility to consider a European section or school.

Annex V: Buildings

	Name, location and type of building	Other Comment
<i>Information to be provided per building:</i>		
Surface area (in square metres) <ul style="list-style-type: none"> - Of which office space - Of which non-office space 	Main Building 5.974 sqm <ul style="list-style-type: none"> - Office space: 2.607 sqm - Non office space 3.367 sqm New Building: 2.355 sqm <ul style="list-style-type: none"> - Office space: 1.240 sqm - Non office space 1.115 sqm Guest House: 744 sqm <ul style="list-style-type: none"> - Office space: 378 sqm - Non office space 366 sqm Mobile Office: 394 sqm <ul style="list-style-type: none"> - Office space: 250 sqm - Non office space 144 sqm Total surface: 9.467 sqm <ul style="list-style-type: none"> - Office space: 4.475 sqm - Non office space 4.992 sqm 	Office space includes: offices, meeting rooms, boardroom, auditorium and EOC. Non-office space includes: corridors, stairs, toilettes, storage areas, server rooms, technical rooms, canteen, cafeteria and basement.
Annual rent (in EUR)	1.772.521,73 €	Actual amount paid in 2015. The contract is signed in local currency (16.472.124,00 SEK in 2015 including indexation)
Type and duration of rental contract	<i>Expiration date 31/5/18 with automatic renewal for 3 years if no termination notice by 31/7/16.</i>	
Host country grant or support	<i>No. Host Country doesn't grant any support.</i>	
Present value of the building	NA	

Current building(s)

Building projects in executing phase

There is a building project ongoing aiming at moving to the new premises in the spring 2018. The future total surface will be 9407 sqm.

A new rent contract has been signed on 27 July 2016 with Klovern for an initial period of 15 years that could be extended up to another 10 years. The forecasted delivery date of the building is 28 February 2018.

Building projects submitted to the European Parliament and the Council

ECDC building project has already been presented to the respective committees in the European Parliament and in the Council, receiving a favourable opinion at both instances.

The building questionnaire was submitted in due time to Budgetary Authority.

The European Parliament issued a favourable opinion on the session held on 24 May 2016 and the Council voted positively on 26 May 2016.

Annex VI. Privileges and immunities

Agency privileges	Privileges granted to staff	
	Protocol of privileges and immunities / diplomatic status	Education / day care
The Agency enjoys the privileges stipulated in the Protocol on the Privileges and Immunities of the European Communities (Articles 1 to 4 of the Protocol)	<p>Articles 12 to 16 of the Protocol on the Privileges and Immunities of the European Communities are applicable to the staff of the Centre.</p> <p>This includes:</p> <ol style="list-style-type: none"> 1) Immunity from jurisdiction as regards acts carried out by them in their official capacity. 2) Exemption from regulations restricting immigration and formalities for the registration of foreigners. 3) Right to import household effects from their last country of residence or from the country of which they are nationals <p>The Director of the Centre and the Deputy to the Director together with their families are granted the immunities and privileges accorded to heads of diplomatic missions and members of their families.</p>	Family members of staff have access to day care/education in accordance with Swedish legislation.

Annex VII. Evaluations

External evaluation:

ECDC's Founding Regulation requires the Centre to organise external evaluations every five years to assess how well it is performing its mission. The Second Independent External Evaluations of ECDC, conducted by a consortium led by the Rome-based consultancy Economisti Associati, was concluded during 2014. The period looked at in the evaluation was 2008–2012, therefore progress made in 2013–2014 was not taken into account.

The report was discussed in the Management Board and the Board adopted a set of recommendations for action in response to the evaluation in its meeting in June 2015. Based on the evaluation and the recommendations of the Board, ECDC developed an action plan for the implementation of actions. The action plan was approved by the Management Board in November 2015.

The external evaluation is available on ECDC website:

<http://www.ecdc.europa.eu/en/aboutus/Key%20Documents/ECDC-external-evaluation-2014.pdf>

Internal evaluations:

In addition, ECDC adopted a new procedure for the internal evaluation of its work in 2015 (ECDC/IP/88).

The scope of the procedure is the implementation of the Internal Control Standard (ICS) 14 "*Evaluation of Activities*", which states: "*Evaluations of expenditure programmes, legislation and other non-spending activities are performed to assess the results, impacts and needs that these activities aim to achieve and satisfy. [...] Requirement: 14a) Evaluations are performed in accordance with the ECDC evaluation standards.*"

All evaluations should be linked to activities in the Single Programming Document. Evaluations will generally be conducted ex-post and should be part of a multi-annual plan approved by the Director.

Evaluations should be carried out for interventions such as: work programme activities, programmes, projects, processes, the work of disease networks and also more generic functions performed by the Centre (e.g. preparedness, epidemic intelligence, procurement).

Are out of the scope of this procedure:

- The five-year external evaluations³⁷; internal evaluations actually complement the five-year external evaluations by providing additional evaluations of specific products or services;
- Audits;
- Specific internal self-assessments / evaluations performed by individual Units with the purpose to continuously improve their products or services (e.g. peer reviews, evaluations of Unit-specific processes);
- PHE evaluations, CMMI, individual appraisals, as they follow dedicated methodologies.

An annual evaluation plan and indicative multi-annual evaluation programme are approved by the Director, after consultation of the relevant internal stakeholders and strategically aligned with the SMAP.

In addition, the Financial Regulation (art. 29(5)) requires regular ex-ante, interim or ex-post evaluations for certain interventions³⁸.

The multi-annual evaluation programme shall be drawn up taking into account the life cycle of the interventions, the operational and strategic needs of the Units, general requirements for evaluation, and any specific requirement for evaluation as set out in the legal base of the intervention.

³⁷ ECDC Founding Regulation, article 14.5.b

³⁸ "Such evaluations shall be applied to all programmes and activities which entail significant spending and evaluation results shall be sent to the Management Board" (Evaluation ([Article 29\(5\) FR](#))).

All interventions addressed to external parties must be periodically evaluated in proportion with the allocated resources and the expected impact.

The timing of evaluations must enable the results to be fed into decisions on the design, renewal, modification or suspension of activities.

The criteria applied to rank and select potential evaluation topics were: criticality of the process/activity, impact on customers, need for improvement, frequency of use and whether the process/activity is cross-organisational.

The new process has been piloted in 2015, to assess the governance of IT. The evaluation has been completed and the report will be endorsed by the SMT in February 2016.

Every year a number of ECDC's projects or products will be assessed.

Annual stakeholder surveys:

Since 2015, ECDC has launched its first annual stakeholder survey targeted to members of the Management Board, Advisory Forum, Competent Bodies, National Focal Points and relevant external stakeholders (EU institutions, relevant EU agencies, international organisations). The survey is analysed and the results presented to the Management Board. Improvements are proposed and implemented as part of an action plan. In 2015 the corrective actions were included in a common action plan with the external evaluation.

Monitoring of ECDC work programme implementation:

The implementation of ECDC work programme is managed through a Management Information System, as well as dedicated dashboards reviewed monthly by the Senior Management Team. Quarterly meetings are organised with all Heads of Units and Disease Programmes to review the level of implementation of the Work Programme. An update is given at each meeting of the Management board.

Annex VIII. Draft Risk Assessment for Work Programme 2017

As part of preparing the Single Programming Document (SPD) 2017, ECDC conducted a risk self-assessment exercise in order to identify all main risks that could impact the implementation of the SPD. The risk assessment for the SPD is based on the ECDC Risk Management exercise performed annually in line with the Internal Procedure on Risk Management Guidelines (see attached ECDC/IP/73 – rev.1).

The following main risks were identified:

- Risk of SPD implementation suffering from a PHE event or impacted by other unforeseen additional politically prioritised activities. Although there is preparedness in ECDC for scaling down activities, it would still imply that ECDC would not implement a part of the SPD as planned.
- Unavailability of data from member states and/or unavailability of member states/stakeholders resources to contribute to and/or participate in ECDC activities. At the moment ECDC has a good acceptance/support among stakeholders, however budget constraints on member states/stakeholders could impact their priorities regarding ECDC related activities.
- Outsourcing of activities. Any outsourcing implies dependence on external parties. All forms of external parties' non-delivery (including insufficient quality) would potentially jeopardize the implementation of the SPD. Good planning and follow-up of outsourced work (including quality control) should reduce this risk to an acceptable level. However, for the SPD 2017, the areas of the Web portal 2.0 and the Customer Relationship Management System, as well as the dependence on ICT and other consultants, have been identified as having a high residual risk of potential delays in the service delivery, thereby requiring an increased attention from ECDC staff and management.
- Immaturity of ICT processes remains one of the highest risks in the good execution of the ECDC ICT work plan. Mitigation actions taken in 2015 and continued in 2016 are producing positive effects in regards to: the elaboration of the ICT long term strategy, the availability of key enterprise architecture skills, the selection and adoption of an enterprise architecture framework, the experimentation of an enterprise architecture approach for reengineering the surveillance systems, the improvement of quality processes notably in IT project management and requirement management area.
- Cooperation with the European Neighbourhood Policy partner countries is at risk of being disrupted/stopped in 2017 due to lack of external funding.
- Any budget cuts in the 2017 budget and/or additional cuts of posts in the establishment table 2017, would impact the SPD negatively. Also, any large change in the exchange rate (SEK/EURO) risks impacting the budget implementation and thereby also the execution of the SPD.

Annex IX a - Procurement Plan 2017 for operational expenses Year N+1 Title 3 (Financing decision)

The Financing decision for the procurement plan has been redesigned to take into account the recommendations of the internal Audit Service. The amounts and timeframes are estimates. The Director is allowed to adapt the amounts through transfers, within the remits of its authority, as per the Financial Regulation.

Strategy	Functional group	Generic description of procurements	Estimated Amount	Indicative number and type of Procurement	FWC number	Indicative Period	
1. Surveillance and epidemic intelligence	1. Public health surveillance	Data management	415,000	4 Specific Contracts under framework contract	FWC: ECDC/2014/038; DI 7171	Q1-Q2 2017	
		Evaluation HIV/AMR/HAI surveillance	209,000	1 Specific Contract under framework contract	FWC: ECDC/2016/037	Q1 2017	
		Guidance screening on migrants	70,000	1 Specific Contract under framework contract	FWC: ECDC/2015/016	Q1 2017	
	1. Public health surveillance Total			694,000			
	2. Molecular surveillance	Molecular surveillance	27,000	1 Specific Contract under framework contract		Q1 2017	
	2. Molecular surveillance Total			27,000			
	3. Methods to support disease prevention and control	Methods to support disease prevention and control (analysis of surveillance data and GIS)	255,000	3 Specific Contracts under framework contract	FWC: ICT-reopening FWCS; ECDC/2014/038; ECDC/2014/041	Q1 2017	
3. Methods to support disease prevention and control Total			255,000				
1. Surveillance and epidemic intelligence Total			976,000				
2. Scientific support	1. Scientific advice coordination	Methodology, standards and tools for scientific advice (incl.scientific advice repository, EBPH grading system, needs and use of scientific advice)	150,000	2 Specific Contract under framework contract; 2 Negotiated Procedures	FWC: ECDC/2014/025; ECDC/2015/002	Q1-Q2 2017	
	1. Scientific advice coordination Total			150,000			
	2. Research coordination and studies	Research studies (incl. drivers of infectious diseases, migrant health assessment)	100,000	1 Open Call for Tender ; 2 Negotiated Procedures		Q4 2016-Q1 2017	
	2. Research coordination and studies Total			100,000			
	4. Management and administrative support	ESCAIDE scientific conference 2017		360,000	1 Specific Contract under Existing Framework contract	FWC: ECDC/2014/011	Q4 2016
Open access publications			79,200	25 Negotiated Procedures			
4. Management and administrative support Total			439,200				
2. Scientific support Total			689,200				

Strategy	Functional group	Generic description of procurements	Estimated Amount	Indicative number and type of Procurement	FWC number	Indicative Period
3. Preparedness and response	1. Support to EU outbreaks	EOC	20,000	2 Specific Contracts under framework contract ; Negotiated Procedure		Q1 2017
		Risk assessment	55,000	1 Specific Contract under framework contract	FWC: ECDC/2016/012 PALLAS	Q1 2017
	1. Support to EU outbreaks Total		75,000			
	2. EU preparedness	EU preparedness (incl. PH emergencies preparation, biorisk, simulation exercises)	65000	1 Re-opening of competition	ICT-reopening FWCS	Q1 2017
		PHEP handbook	50000	1 Specific Contract under framework contract	Negotiated procedure for a direct service contract.	Q1 2017
		Trainings (PHE preparedness, biorisk)	118000			
	2. EU preparedness Total		233,000			
3. Preparedness and response Total			308,000			
4. Training and capacity building	1. Fellowships EUPHEM -EPIET	Public health training	67,500	1 Specific Contract under existing Framework Contract	FWC: ECDC/2015/018	Q2 2017
	1. Fellowships EUPHEM -EPIET Total		67,500			
	2. Training networks	Short courses	80,000	1 Negotiated procedure		Q1 2017
	2. Training networks Total		80,000			
	4. e-learning	E-learning	90,000	2 Specific Contracts under existing Framework Contract	FWC: ECDC/2015/037	Q1 2017
	4. e-learning Total		90,000			
	5. Management and administrative support	Training strategy; quality assurance (accreditation)	10,000	2 Negotiated procedures		
Training material		50,000	1 Negotiated procedures		Q4 2016	
5. Management and administrative support Total		60,000				
4. Training and capacity building Total			297,500			
5. Communication	1. Press, media and Information services	Press media and information (incl. audiovisual, infostands, graphic design support, media monitoring)	205,000	4 Negotiated Procedures ; 7 Specific Contracts under existing Framework Contract	FWC: ECDC/2014/035; ECDC/2014/012; ECDC/2016/003; ECDC/2015/010; ECDC/2014/010	Q4 2016 - Q1 2017
	1. Press, media and Information services Total		205,000			
	3. Web portal and extranets	Web portal and extranets	25,000	1 Negotiated Procedure		Q1 2017
3. Web portal and extranets Total		25,000				
5. Communication Total			230,000			

Strategy	Functional group	Generic description of procurements	Estimated Amount	Indicative number and type of Procurement	FWC number	Indicative Period	
6. Management, administration	COP 2. Working with European Union and member States	European Forum Gastein workshop	25,000				
	COP 2. Working with European Union and member States		25,000				
	ICT 1. Software services	ICT business analysis, internal development and external softwares	2,197,045	3 Re-opening of competition	ICT-reopening FWCS	Q4 2016	
	ICT 1. Software services Total		2,197,045				
	ICT 2. Hosting, operating, maintenance, administration and security of applications and infrastructures	ICT SLA		176,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/019	Q4 2016
		ICT backoffice		674,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/023	Q4 2016
		ICT frontoffice		872,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/019	Q4 2016
		ICT testing		184,378	1 Re-opening of competition	ICT-reopening FWCS	Q4 2016
	ICT 2. Hosting, operating, maintenance, administration and security of applications and infrastructures Total		1,906,378				
	ICT 4. Management and administrative support	ICT management (incl. IT enterprise architecture, programme management, support to ECDC administration)	202,577	3 Re-opening of competition	ICT-reopening FWCS	Q1 2017	
ICT 4. Management and administrative support Total		202,577					
RES 6. Internal Communication and Knowledge Services	Knowledge management services	200,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/015	Q4 2016		
RES 6. Internal Communication and Knowledge Services Total		200,000					
6. Management/Administration Total			4,531,000				
7. Disease programmes	Antimicrobial resistance and Healthcare-Associated Infections (ARHAI)	Antibiotic awareness day	100,000	2 Specific Contract under existing Framework Contract	FWC: ECDC/2014/010; ECDC/2015/027	Q2 2017	
		Antimicrobial susceptibility testing	137,500	Specific Contract under existing Framework Contract	ECDC/2015/024	Q4 2016	
		European clostridium difficile	60,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/016	Q1 2017	
		Estimation of burden for AMR and HAI	30,000	1 Negotiated procedure		Q1 2017	
		HAI-net	415,000	20 Negotiated Procedure ; 3 Specific Contract under existing Framework Contract	FWC: ECDC/2015/004; ECDC/2016/013; ECDC/2016/032	Q4 2016	
		European molecular surveillance of CPE	58,000	1 Negotiated procedure		Q4 2016	
		CPDP infection control track	15,000	1 Negotiated procedure		Q1 2017	
		EARS-net	146,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2014/018	Q1 2017	
		ESAC-net	80,000	Specific Contract under existing Framework Contract	FWC: Call for FWC in preparation	Q1 2017	
		Country preparedness visits	90,000	1 Negotiated procedure		Q1 2017	
Antimicrobial resistance and Healthcare-Associated Infections (ARHAI) Total		1,131,500					

Strategy	Functional group	Generic description of procurements	Estimated Amount	Indicative number and type of Procurement	FWC number	Indicative Period	
	Emerging and vector-borne diseases (EVD)	EVDLabNet	200,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/002	Q1 2017	
		West Nile fever	77,200	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/OCS/5960/01	Q1 2017	
		Dengue, chikungunya, Zika	39,400	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/031	Q1 2017	
		Vector-net	200,000	1 Specific Contract under existing Framework Contract ; 1 Open call for tender	FWC: OC/EFSA/AHAW/2013/02-FWC1	Q1 2017	
		Tick-borne diseases surveillance	55,000	2 Specific Contract under existing Framework Contract	FWC: ECDC/2014/023	Q1 2017	
	Emerging and vector-borne diseases (EVD) Total			571,600			
	Food & waterborne diseases (FWD)	Legionella	139,432	2 Specific Contract under existing Framework Contract	FWC: ECDC/2014/033	Q4 2016	
		WGS	50,000	1 Negotiated Procedure ; 2 Specific Contract under existing Framework Contract	FWC: ECDC/2015/022	Q1 2017	
		VcJD	89,168	Specific Contract under existing Framework Contract	FWC: ECDC/2014/009	Q4 2016	
		EQA for Salmonella and Campylobacter	50,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2014/022	Q4 2016	
		FWD Molecular typing curation	45,000	3 Specific Contract under existing Framework Contract	FWC: ECDC/2016/029; ECDC/2016/006	Q4 2016	
	Food & waterborne diseases (FWD) Total			373,600			
	Influenza (IRV)	Effectiveness of vaccines and non pharmaceutical countermeasures	165,000	2 Specific Contract under existing Framework Contract	FWC : ECDC/2014/026	Q1-Q2 2017	
		ERLI-Net (incl. training, mortality monitoring, EQA)	285,000	4 Specific Contract under existing Framework Contract		Q4 2016	
		Simulation exercise avian influenza preparedness	-	1 Negotiated Procedure		Q1 2017	
	Influenza (IRV) Total			450,000			
	Sexually transmitted infections, including HIV, STI and blood-borne viruses (HSH)	Improve epidemiological assessment (incl. HIV, gonorrhoea, STI,)	358,000	1 Open Call for tender; 4 Specific Contract under existing Framework Contract	FWC: ECDC/2016/018; ECDC/2013/015; ECDC/2016/028; ECDC/2016/017	Q4 2016	
		Monitoring of response to HIV (FWC ECDC/2015/013)	70,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2015/013	Q4 2016	
		Develop scientific guidances (HIV testing, youth interventions for HIV and STI, Hep B and C testing)	235,000	3 Specific Contract under existing Framework Contract; 1 Open Call for tender	FWC: ECDC/2016/035; ECDC/2014/013; ECDC/2016/027	Q4 2016	
		Consolidate surveillance (HIV-AMR, Hep B and C)	70,000	1 Open Call for tender; 1 Specific Contract under existing Framework Contract	FWC : ECDC/2014/041	Q4 2016	
Sexually transmitted infections, including HIV, STI and blood-borne viruses (HSH) Total			733,000				

Strategy	Functional group	Generic description of procurements	Estimated Amount	Indicative number and type of Procurement	FWC number	Indicative Period	
	Tuberculosis (TB)	Support to high priority countries	150,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2015/032	Q4 2016	
		Scientific guidance on EU standards for TB care	50,000	1 Negotiated Procedure		Q1 2017	
		Assessment of TB under-reporting	65,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2016/004	Q1 2017	
		WGS	50,000	1 Open Call for tender		Q1 2017	
	Tuberculosis (TB) Total			315,000			
	Vaccine Preventable Diseases (VPD)	Lab coordination activities (pertussis, IBD, diphteria)	231,000	2 Specific Contracts under existing Framework Contract ; 1 Negotiated Procedure	FWC: ECDC/2015/009; ECDC/2016/001	Q4 2016 - Q1 2017	
		Scientific studies (pertussis, SpidNet, pneumoccal vaccination)	653,000	2 Specific Contracts under existing Framework Contract ; 1 Negotiated Procedure	FWC: ECDC/2015/017; ECDC/2015/031	Q1 2017	
		Country assessment polio preparedness	60,000	1 Specific Contract under existing Framework Contract	FWC: ECDC/2014/005	Q1 2017	
		Monitoring and evaluation (VENICE, Council conclusions, migrants)	257,000	2 Negotiated Procedures ; 1 Open Call for Tender		Q3 2016 - Q1 2017	
		Other (incl. training on polio eradication for MS, preparedness, vaccine acceptance)	265,000	3 Negotiated Procedures ; 2 Specific Contracts under existing Framework Contract	FWC: ECDC/2014/005; ECDC/2014/013	Q1 2017	
		Consultancy support HPV, pneumoccal vaccination, life-long vaccination, polio	114,000	2 Negotiated Procedures ; 1 Open Call for Tender		Q1 2017	
Vaccine Preventable Diseases (VPD) Total			1,580,000				
7. Disease programmes Total			5,154,700				
External meetings		Framework contract AMEX for meetings	3,003,600			Q1 2017-Q4 2017	
GRAND TOTAL			15,190,000				

Annex IX b – Grants 2017 for operational expenses Year N+1 - Title 3

1. ERLTB-Net

Subject matter of the Action: ERLTB-Net: Implementation of lab coordination activities, including lab network coordination, EQA, training, strain collection, typing, scientific advice & technical guidance on lab issues as well as methods harmonisation and network meeting.

Type of grant: Specific grant agreement under existing framework partnership agreement

Objective of the grant: To strengthen the TB laboratory services in the EU.

Expected result: Ensure coordination and full establishment of the network and enhance support to master the challenges of TB control and elimination at EU level.

Expected amount 2017: 200,000 EUR

Expected launch: Q4 2016

Maximum rate of co-financing: 90%

Human resources from ECDC (FTEs): 20days (= 0.12 FTEs)

2. VENICE.net

Subject matter of the Action: Monitoring and evaluation: Continuation of VENICE.net activities for VPDs incl. influenza under the existing FWC

Type of grant: Specific grant agreement under existing framework partnership agreement

Objective of the grant: To continue the VENICE and VENICE II projects.

Expected result: To collect information on the national vaccination programmes through a network of professionals and ensure its availability to Member States and relevant stakeholders.

Expected amount 2017: 231,176 EUR

Expected launch: Q4 2016

Maximum rate of co-financing: 90%

Human resources from ECDC (FTEs): 20days (= 0.12 FTEs)

3. Fellowships

Subject matter of the Action: Scientific Coordination for EPIET Fellowships (Epidemiology and Public Health Microbiology (EUPHEM) paths) and hosting of fellows at EPIET and EUPHEM Training Sites

Type of grant: Specific grant agreements under existing framework partnership agreements

Objective of the grant: To ensure that EU-track fellows can be employed by their Training Sites with the financial support of ECDC and to ensure the availability of highly qualified scientific coordinators

Expected result: Successful running of the EPIET/EUPHEM fellowship programme

Expected amount 2017: 2,459,000 EUR (22 specific agreements)

Expected launch: Q4 2016

Maximum rate of co-financing: 90%

Human resources from ECDC (FTEs): 13 days (= 0.08 FTEs)

List of specific agreements:

Annex X. Organisation chart year N+1

