HELSEPLATTFORMEN
for pasientens helsetjeneste

Procurement of an EHR solution with adjacent systems and services

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Pre-qualification Information Memorandum

Competitive Dialogue
(Public Procurement Regulation part I and III)

Application deadline:
17 October 2016 at 12:00 CET

Case number: 2016/238

Contents

1 INTRODUCTION

1.1 GENERAL

The Central Norway Regional Health Authority RHF ("HMN") and the City of Trondheim ("TCT"), together with other municipalities in the Central Norway Health Region (Møre og Romsdal, Nord-Trøndelag and Sør-Trøndelag, as well as Bindal municipality in Nordland county), hereby invite interested parties to participate in the Pre-qualification for the delivery of a new electronic health record ("EHR") solution and adjacent systems and services for the specialist and primary health services in Central Norway (hereafter the "EHR solution"). The procurement has been announced in Doffin (www.doffin.no) and TED (Tenderers Electronic Daily, ted.europa.eu).

The Pre-qualification shall determine whether the Candidate's financial, organisational and technical qualifications are sufficient to participate in the competition for the Contract for the EHR solution. The Candidates should note that the project is of great economic value and of critical importance for the health services in Central Norway. This means that strict requirements to the Candidate's financial, organisational and technical qualifications will apply.

The procurement will be performed through a competition between Pre-qualified Candidates as a Competitive Dialogue in accordance with the Norwegian Public Procurement Act of 16th of July 1999 ("LOA"), cf. the regulation on public procurement 7th of April 2006 nr. 402 ("FOA") Section 14-2. The Contract will be awarded to the successful Bidder having the most economically advantageous offer.

To carry out and manage the procurement, a program – "Helseplattformen"- with broad participation from the participating entities, has been established.

In the interest of fair competition, Helseplattformen will invite the Candidates to an information meeting as indicated in the time schedule below, cf. Annex 6. The information meeting will focus on providing relevant information to all parties interested in participating in the Pre-qualification.

A new common EHR solution will replace existing HMN and municipalities solutions and provide significantly improved functionality compared to current solutions, including electronic interaction between entities to support clinical pathways across organisational borders and interfaces, facilitation of active involvement of citizens in their own health (patient empowerment), and the collection of health data for organisational-, development- and research objectives. Further details of the scope of the procurement are provided in Section 2.3, Section 2.4 and Annex 4.

Helseplattformen and the national health authorities have agreed to enter into a close cooperation with the aim that Helseplattformen's procurement will be a first step towards the objectives set out in "Én innbygger - én journal" (EIEJ), cf. https://ehelse.no/strategi/n-innbygger-n-journal. Subsequent procurements of EHR solutions might thus, though acquired separately from and independently of Helseplattformen, build on experiences from Helseplattformen. The cooperation will include other health enterprises and municipalities and focus on verifying that the requirements set out in the describing documents are aligned with the national strategy and the long term objective of a common national EHR solution, in particular the need for a high level of interoperability between primary and specialist care units across the country.

Candidates should note that the decision of the exact scope of the procurement will be subject to clarifications throughout the procurement dialogue process, and that the scope, set out in these Pre-qualification Documents, within the legal framework of the procurement regulations, thus may be adjusted.

This Pre-qualification Information Memorandum provides information regarding the procurement and describes the criteria and procedure for selecting the Candidates that will be invited to participate in the Competitive Dialogue (Pre-qualified Candidates).

1.2 LIST OF ANNEXES

This Pre-qualification Information Memorandum has the following Annexes:

Annex 0 – Pre-qualification Check List

Annex 1 – Pre-qualification Questionnaire

Annex 1 - Attachment 1 References

Annex 1 - Attachment 2 Demonstration of capacity

Annex 2 – Information on the specialist and primary health services in Central Norway

Annex 3 – List of Customers

Annex 4 – Description of the functional scope of the procurement

Annex 4 - Attachment 1 The Enterprise Capability Model Used for Helseplattformen

Annex 5 – Declaration of Commitment (template)

Annex 6 - Invitation to Pre-qualification Conference

Annex 7 – Declaration on corruption and professional conduct (template)

Annex 8 – Certificate of Independent Bid Determination (template)

1.3 DEFINITIONS

Where the following terms and expressions are used throughout the Pre-qualification Documents, they shall have the following meaning:

Bidder	The legal entity submitting a proposal or a tender in the competitive dialogue.
Candidate	The legal entity submitting documentation to be pre-qualified under the procedure described in this Pre-qualification Document.
Contract	The agreement to be entered into with the Contractor.
Contractor	The Bidder awarded the Contract.
Customers	The entities and organisations listed in Annex 3.
Helseplattformen	Either, as understood by the context it is used: i) the complete set of requirements together constituting the EHR solution, including adjacent systems and services, as described in Section 2.3, Section 2.4 and Annex 4, or ii) the organisation tasked with acquiring the EHR solution.
ITD	The Invitation to Dialogue document (the descriptive document for the competitive dialogue).
Pre-qualification Application	The documents submitted by the Candidates to Helseplattformen under this Pre-qualification.

Pre-qualification Documents	The Pre-qualification Information Memorandum and all its Annexes and Attachments.
Pre-qualified Candidate	The Candidates that become pre-qualified under this Pre-qualification.
Turnkey	A single entity with one contractual interface taking the overall responsibility for the complete delivery of the EHR solution.
User	An actor (organisation or individual) that is offered/requires to use the solution.

2 BACKGROUND AND SCOPE

2.1 ABOUT THE CUSTOMERS

The procurement is carried out by Helseplattformen on behalf of the Central Norway Regional Health Authority RHF and its Health Trusts ("HMN), and the City of Trondheim (TCT) Municipality, as well as the other municipalities in the Central Norway Health Region (84 municipalities cf. Annex 3). Helseplattformen will also acquire options for the General Practitioners (GPs) in the region. A further description of the Customers is provided in Annex 2 and Annex 3.

As described in Annex 3, HMN and the municipalities respectively have entered into agreements with several private hospitals, institutions and contract health specialists in the region. These private entities, together with entities that may be awarded contracts in the future, shall also have the possibility to be included in the scope of the Contract.

It is envisaged that a common entity will act/be responsible on behalf of the Customers towards the Contractor. During the Contract term the organisational structure and ownership of this entity, or any of the Customers, may be changed due to re-organisation or from organic growth, from mergers, acquisitions or divestitures. Irrespectively, the new entities will be governed by the Contract regardless of whether the reorganisation concerns HMN or the municipalities or otherwise.

2.2 OVERALL OBJECTIVES

The overall objectives for Helseplattformen, and what the procurement sets out to achieve, are as follows (the numbering does not represent any prioritizing):

1. Increased treatment quality and fewer patient injuries
2. Access to continuously updated clinical knowledge based on best practice
3. Provide the citizens of Central Norway with easy access to their own health record and a higher degree of influence on their own course of treatment
4. Increased interaction in and between the primary and specialist health care services
5. Improved data and information for use in research and innovation
6. Increased efficiency and better use of resources
7. Improved management information to be used in quality- and continuous improvement work in daily operations
8. Reduced time spent on documentation and search for health information
9. Compliance with national standards and requirements

Furthermore, an objective is that services are provided to support citizens to live independently in their own homes, thereby reducing the need for municipal and state institutions. This involves

developing generic integrated care pathways that are based on the citizen's functional abilities, early intervention and everyday self management.

In addition to these overall objectives, Helseplattformen has, as described in Section 1.1, agreed to enter into a close cooperation with national authorities with the aim that Helseplattformen's procurement will be a first step towards the objectives set out in "Én innbygger - én journal" (EIEJ),

2.3 THE SCOPE OF THE PROCUREMENT

In order to comply with the above overall objectives, this procurement seeks to acquire and implement an EHR solution, together with certain adjacent systems. The procurement also includes support and maintenance services. The term of the Purchase Contract will be 10 years after go-live for the last Health Trust is completed. Support and maintenance will be governed by a continuous Maintenance and Support Contract. Within the scope of the procurement is also included training of users, consultancy services related to e.g. installation(s) and integration interfaces, customisation (adjustment and adaptations to systems and functions), configuration and data migration, and other software, materiel and services as are needed to support the implementation of the EHR solution.

The ITD will define the framework for the Customer's role and participation, including Customer resources that will be available for adaptation and implementation of the solution.

For further information on the functional scope of the procurement, reference is made to Annex 4: Description of the functional scope of the procurement.

The procurement will not include operations management (infrastructure operation, application operation, application management) services ("driftstjenester"), but the team implementing the solution must have sufficient qualifications in this field. Furthermore, integrations to systems outside Helseplattformen will not be acquired at this stage. However, the Contractor of the EHR solution will be required to disclose all interfaces that he supports, and the capability to integrate and to support integration with other systems will be required and given high priority.

The decision of how the operation of Helseplattformen will be established will be made at a later stage.

The EHR solution shall be technology adaptive over time and enable the Customer to take part in the technological development towards continuously improving the health services in the region in line with the overall objectives, cf. Section 2.2.

The EHR solution must adhere to Norwegian regulatory requirements, including those directed at data protection and information security, and be adaptive to future national and European requirements in this respect.

In order to reduce implementation risk a high degree of maturity of the EHR solution will be considered favorably.

For the avoidance of doubt, the solution should appear as a unified solution for the Customers (users and administrators), but may consist of one or more systems/applications/components.

2.4 FURTHER CLARIFICATIONS OF THE SCOPE OF THE PROCUREMENT

The ITD will contain a further description of the EHR solution and the scope of the procurement. The scope is dependent on factors such as the Candidates' ability to compete in delivering an overall attractive Turnkey solution, the various proposed solutions interface and ability to

interact with existing systems that will not be replaced[1], as well as the Customer's capacity and ability to take part in the implementation of the systems offered.

A significant purpose with, and part of, the dialogue will be to establish the parts that together provide a comprehensive solution to cover the procurement objectives. Thus Candidates should note that the decision of the procurement scope will be subject to clarifications through the procurement and dialogue process, and that the scope, set out in these Pre-qualification Documents may be adjusted within the framework of the procurement regulations.

Similarly Candidates must note that the division between firm orders and options will be finally decided in the ITD and the Competitive Dialogue phase. At the outset the procurement scope covering TCT and the remaining municipalities will e.g. be procured as options. In the ITD, some or all of the municipality options may be made into firm orders.

Also, if the dialogue process demonstrates that certain parts of the initial scope has an unacceptable degree of risk (as deemed by the Customer), or that lack of actual competition has resulted in a product significantly below expectations (including if existing systems are superior), or a price clearly above what is reasonable and expected, the Customer may choose to cancel that particular functionality from the procurement scope. The decision of the exact scope and definition of Helseplattformen will thus in itself be subject to clarifications through the procurement process and the Competitive Dialogue.

Elements that are withdrawn from the scope of Helseplattformen may instead be converted into options for the Customer, or acquired under a separate procurement process.

In certain cases, as further set out in the ITD, the existing system will be maintained, or allowed to be included in the tender by the Contractor as an alternative way of fulfilling the requirements, in which case the existing system will require an integration with the new EHR solution.

2.5 ESTIMATED PROCUREMENT VALUE

The procurement will take into account the principle of total cost of ownership as far as relevant and practicable. This will in particular include estimated internal cost associated with implementing and running the solution in the various user environments.

Depending on the final scope that will be clarified as part of the Competitive Dialogue process, the procurement value is expected to be between 1,4 and 2,7 billion NOK excl. VAT, including options, for a calculated 10 year period after go-live for the last Health Trust. Candidates are advised that this estimate has a high degree of uncertainty, and that the final outcome may be higher or lower. The concrete budget for the procurement will not be disclosed.

2.6 CONTRACT TERMS AND CONDITIONS

The Contract for the Delivery of Helseplattformen will, as a starting point for the dialogue, be based on the contractual terms imposed by the Government Standard Terms and Conditions for IT-Procurement (Direktoratet for forvaltning og IKT), SSA-T (Delivery of Software), SSA-V (Maintenance), SSA-B (Consultancy) and SSA-S (Agile). There will be made modifications in the standard terms and conditions referred to above where this is deemed to be appropriate.

[1] During the dialogue phase the final scope, and thus what systems will be replaced in whole or in part, will be discussed and decided.

3 ADMINISTRATIVE INFORMATION AND REQUIREMENTS

3.1 CONTRACT AWARD PROCEDURE

This procurement will be conducted in accordance with the Norwegian Public Procurement Act of 16th July 1999 no.69 ("LOA") and the Public Procurement Regulations of 7th April 2006 no. 402 ("FOA"). The said Act and Regulation can be found on www.lovdata.no. The procedure will be **Competitive Dialogue** in accordance with FOA part I and III, cf. Section 14-2.

Contract award will be based on the most economically advantageous offer. The award criteria will be performance, price and risk. Further details will be given in the ITD Document. The ITD will be sent out to all pre-qualified Candidates.

Competitive Dialogue allows all interested Candidates to apply for qualification and participation in the Competitive Dialogue. The Customer will invite Candidates to participate in the Competitive Dialogue based on the requirements for participation set out in the Pre-Qualification Questionnaire, cf. Annex 1.

The purpose of the Competitive Dialogue is to provide an arena to award complex contracts, where there is a need for the Customer to discuss all aspects of the proposed contract with prospective Candidates. Through dialogue the parties may identify and determine how the Customer's needs may be fulfilled.

The dialogue phase will be conducted in several stages to limit the number of solutions the Customer wishes to discuss. The Customer reserves the right to reduce the number of Contractors / solutions during the dialogue phase. Exclusion of solutions will be based on the award criteria.

The dialogue phase will continue until the Customer has found the solution(s) which will form the basis for the specification in the final Invitation to Tender.

When the best solutions are found, the Customer will declare that the dialogue phase is over. An invitation to give a final offer on the basis of the selected solutions, will be given to the participants who were attending the last phase in the dialogue, cf. FOA § 20-9.

The final offer will be delivered within a given deadline for offers and contain all the necessary elements. After the dialogue phase is completed, it is not permissible to negotiate the final offers. Only clarifications, specifications and fine-tuning are allowed, see FOA § 20-9.

3.2 CONTACT INFORMATION

Contact with Helseplattformen during the Pre-qualification process shall be directed **in writing** via the Mercell portal, www.mercell.no.

Submissions shall be marked with the case number "2016/238 - Procurement of an EHR solution with adjacent systems and services".

3.3 QUESTIONS AND CLARIFICATIONS

Questions and requests for clarifications related to the Pre-qualification shall be submitted no later than 10 October 2016 at 12:00 noon (CET).

All questions and requests must be submitted electronically via the Mercell portal, www.mercell.no, before the deadline. Helseplattformen will answer all questions as soon as possible. Questions and answers will be published on Mercell. The originator of the questions will not be identified.

Questions submitted after the deadline for questions will be answered on a best effort basis.

3.4 DEADLINE AND MEANS OF DELIVERY

The Pre-qualification Application must be delivered and signed by electronic means no later than 17 October 2016 at 12:00 CET.

All applications must be submitted electronically via the Mercell portal, www.mercell.no, before the deadline. Late applications will be rejected (the system does not permit applications to be submitted electronically via Mercell after the deadline).

If the Candidate is not a registered user with Mercell, or the Candidate has any questions in relation to the functionality of the tool, e.g. how to submit the application, the Candidate is advised to contact Mercell Support on telephone: + 47 21 01 88 60 or by email to: support@mercell.com.

It is recommended that the application is submitted well in advance of the deadline, e.g. minimum four hours before the deadline (the Customer will not be provided access to the applications until after the deadline).

Should there be a need for making amendments to the application before the deadline, the Candidates may access the application, make the necessary amendments and re-submit the application right up until the deadline. The last submitted application will be considered the final application.

The application requires an electronic signature upon submission.

The Candidate will during the submission of the application be asked to provide an electronic signature to confirm it is the appropriate Candidate who is submitting the application. Electronic signatures can be obtained from www.commfides.com, www.buypass.no or www.bankid.no.

The electronic signature shall relate to the person who has authority according to the Certificate of Incorporation. It should be noted that it may take a few days for the electronic signature to be delivered, so this process should be initiated as soon as possible.

Electronic signature outside of Norway:

The Mercell Portal supports the following electronic signatures from Sweden and Denmark:

- Sweden: Swedish BankID, Nordea
- Denmark: Nem ID, TDC / OCES

Within the EU, Mercell uses a service provided by Unizeto (http://unizeto.eu/) through an agreement with DIFI and the EU project PEPPOL (www.peppol.eu). This supports most of the X.509 certificates, however it is not possible to list all of the applicable certificates.

Mercell recommends that the Candidates test the signing with their available certificate as soon as possible (well in advance of the submission deadline). The test functionality is part of the registration / application submission steps.

The Customer accepts no responsibility for the application not being submitted according to the process described in this document.

If the Candidates have emergency issues that require direct contact with Helseplattformen, the following can be contacted by phone: Torbjørg Vanvik (Contact person), alternatively Bent Gjøstøl (Procurement), +47 950 59 573.

3.5 CONFIDENTIALITY

All information provided by the Candidates under this Pre-qualification will be treated as confidential to the degree allowed by the Norwegian Freedom of Information Act ("*Offentleglova"*) and the Norwegian Public Administration Act ("*Forvaltningsloven)*. In case a

request for access to information from a third party is made, Helseplattformen will, after having heard the views of the Candidate, make an independent assessment of whether the information must be disclosed. Trade secrets are subject to statutory confidentiality.

For the purpose of this procurement, information received from Candidates may, for the purpose of facilitating one common national EHR solution, be shared between representatives acting on behalf of the Customers. Information may also be shared with the health authorities (the Norwegian Directorate of Health, the Norwegian Directorate of eHealth (NDE), and the Ministry of Health and Care Services), other regional health trusts and municipalities.

3.6 ETHICAL GUIDELINES

In order to ensure an objective, transparent and in all aspects fair competition, ethical guidelines shall apply to both the Candidates' behaviour in the Pre-qualification (and throughout the competition), and to the Customers and the Customer's personnel involved in the procurement.

The Candidates, including consultants and advisers, shall not try to influence, canvas or offer or give, or agree to give, any person involved in the project any gift, commission, rebate or consideration of any kind.

Helseplattformen's internal ethical standard and guidelines for external communication, including with the Candidates, is published on the https://helse-midt.no/Sider/Etiske-retningslinjer.aspx. All Candidates are expected to respect that Helseplattformen will follow these standards, and not do anything that could risk them being compromised.

The awarded contract will contain provisions regarding ethical requirements. The Contractor will be required to conform to a professional attitude to social responsibility, e.g. having a programme based on guidance laid out in ISO 26000:2010, or a comparable standard or system.

3.7 CANCELLATION AND REJECTION

3.7.1 Cancellation of the procurement process

Helseplattformen may, subject to always having due cause as required by FOA, before the Contract is signed, either reject all offers or cancel the award procedure without the Candidates or the Bidders being entitled to claim any compensation.

The grounds for cancellation include that:

- The procurement fails to be within the budget for HMN.
- National regulations makes it necessary to significantly change the scope, specifications or contractual requirements.

3.7.2 Rejection of Pre-qualification Applications

Candidates are informed that failure to comply with the requirements set out in the Pre-qualification Documents may lead to rejection of the Candidate, including but not limited to provisions regarding delivery time and the documentation required. Any rejection of Candidates and their Pre-qualification Applications will be done in accordance with the Regulation on Public Procurement of 7 April 2006 no. 402 (FOA) Part III Section 20-12 and 20-13.

It is therefore of great importance that the Candidates study the Pre-qualification Documents carefully and follow the instructions herein.

Excluded Candidates will not have their Pre-qualification Application returned. The Pre-qualification Application will be archived or destructed in accordance with applicable regulations.

In accordance with FOA § 19-7 Helseplattformen will set a deadline of at least 15 days for the Candidate to request a preliminary injunction by a court against a decision to reject a Pre-qualification Application. This will include a decision not to include a Candidate subject to a down-selection according to Section 5.

3.8 CHANGES AND AMENDMENTS

Helseplattformen may make any corrections, additions and / or changes in the Pre-qualification procedure subject to the restrictions set out in FOA. If needed the announced time limit for submitting the application will be extended.

Any corrections, supplements or changes will be posted on www.mercell.no.

If these Pre-qualification Documents should contain errors the Candidate must without delay contact Helseplattformen in order to correct the error.

3.9 TIME SCHEDULE

The time schedule below for the competitive dialogue is tentative and not binding. The tentative time schedule can be changed by Helseplattformen at any time during the Pre-qualification stage and/or competitive dialogue. The Candidates will be informed in case of significant changes to the time schedule.

Milestone (tentative time schedule)	Date
Public announcement in: The contract notice published on Doffin (www.doffin.no) and on TED (Tender Electronic daily)	August 29, 2016
Pre-qualification Conference	September 21, 2016
Deadline for submitting questions concerning the Pre-qualification	October 10, 2016 within 12.00 noon (CET)
Deadline for submission of the Pre-qualification Application. This deadline is mandatory	October 17 , 2016 within 12.00 noon (CET)
Decision on which Candidates are qualified and selected	December 15, 2016
Distribution of ITD to selected Candidates.	February 1, 2017
Bidder Conference	February, 2017
Deadline for submission of outline solutions	April 2017
Dialogue phase	Details about the dialogue phase will be made available latest at distribution of the ITD
Contract award and announcement of award decision to all invited Candidates	December 2018
Mandatory stand–still period	10 days
Contract signing	February, 2019

The Candidates invited to the Competitive Dialogue will receive the ITD Documents.

4 PRE-QUALIFICATION APPLICATION REQUIREMENTS

4.1 THE PRE-QUALIFICATION APPLICATION DOCUMENTS

The Candidate shall submit the following documents, and shall adhere to the instructions set out for their completion:

- **A letter signed by the individual(s) with the legal authority to commit the Candidate, stating the Candidate's intention to participate in the competition.**
- A completed Check-list (Annex 0)
- A completed Pre-qualification Questionnaire (Annex 1 including Attachment 1 and Attachment 2) and all documentation required therein
- A completed Declaration of Commitment Form(s) if applicable (Annex 5)
- A completed Declaration on Corruption and Professional Conduct (Annex 7)
- A completed Certificate of Independent Bid Determination (Annex 8)

All documents and accompanying instructions shall be complied with without deviations. The Candidate should be aware of the possibility to raise questions, cf. Section 3.3 and that a Pre-Qualification Conference will be held where the Candidates may ask for clarification of issues related to the Pre-qualification requirements and the required documentation, cf. Annex 6.

4.2 LANGUAGE

The Pre-Qualification Application shall be written in English. Attachments such as annual reports and brochures may alternatively be in Norwegian, Swedish or Danish languages.

4.3 INTRODUCTION TO THE QUALIFICATION REQUIREMENTS

4.3.1 Introduction – the Pre-qualification Questionnaire

The Candidate shall respond to all of the stated qualification requirements in the Pre-qualification Questionnaire (Annex 1), supplemented with attachments where necessary. Any attachments shall be numbered sequentially with reference to the appropriate numbers set out in brackets - "[xx]" - in the questionnaire.

The Pre-qualification Questionnaire establishes the minimum requirements the Candidates must adhere to and the documentation that must be provided in order to be considered by Helseplattformen as pre-qualified for participation in the competition.

The Pre-qualification Questionnaire is divided into three columns. The column *"Information required (Items 1 - 8) / Requirement (Items 9 – 15)"* describes in 1-8 administrative information about the Candidate, and in 9-15 the requirement itself, i.e. the criteria that must be fulfilled in each category in order for the Candidate to be pre-qualified. The column *"Documentation required"* describes the documentation which Helseplattformen will accept as sufficient documentation proving that the requirement has been fulfilled. If, for any valid reason, the Candidate is unable to provide the requested documentation in regard of economic and financial requirements, he may prove his economic and financial standing by any other document which the contracting authority considers appropriate. Additional information or comments may be provided in the column *"Comments/Additional information."* For further information, please refer to the Pre-qualification Questionnaire.

The Candidates are instructed to complete the Pre-qualification Questionnaire and provide the documentation specified therein. Failure to complete the Pre-qualification Documents as instructed, or failure to provide the requested documentation, may lead to rejection of the Candidate, cf. Section 3.7.

4.3.2 The Declaration of Commitment

The Candidates are informed that all the qualification requirements set out in the Pre-qualification Questionnaires may be fulfilled by other companies, for instance sub-suppliers, subsidiaries or other members of a consortium. To the extent the Candidate does not meet the requirements itself, but aims to meet the requirements by utilising the resources of such other companies, the Candidate is required to provide further details as well as documentation that such other company is obligated to deliver the relevant capacity to the Candidate, as well as documentation proving that the qualification requirement in question is in fact fulfilled.

A form of declaration of commitment from such other business entity is included as Annex 5. This form shall be used to document that such a business entity is obligated to deliver the relevant capacity/capability. One form shall be completed for each business entity that the Candidate relies on.

In the Pre-qualification it is permissible to apply for participation as a consortium. From the time of Contract signature, the chosen Contractor must be one legal entity fully responsible to Helseplattformen for the performance of the Contract.

4.3.3 Changes after submission

Any changes to the Candidate's organisation, technical qualifications or financial situation after the Candidate's submission of the Pre-qualification Questionnaire which may have an impact on the evaluation of the Candidate's qualifications, must be submitted to Helseplattformen as soon as possible after the Candidate has received knowledge of the change.

5 SELECTION OF CANDIDATES FOR PARTICIPATION IN THE COMPETITIVE DIALOGUE

Candidates, who have responded and documented that they fulfil the Pre-qualification requirements, as set out in the Pre-qualification Questionnaire, have satisfied the minimum requirements for being qualified.

Among the qualified Candidates, the contracting authority will select a limited number with a minimum of five (5) Candidates if there are sufficient number of qualified suppliers, and a maximum of seven (7) Candidates. Only these Candidates will receive the invitation to participate further in the Competitive Dialogue.

The selection among qualified Candidates will be based on an assessment of which Candidates best satisfy the following selection criteria:

- Candidate capability and experience (ref. requirement item 12) weight: 60 %
- Candidate capacity (ref. requirement item 13) weight: 30 %
- Financial robustness (ref. requirement item 11) weight: 10 %

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Annex 0

Pre-Qualification Checklist

Case number: 2016/238

PRE-QUALIFICATION CHECK LIST

Candidates should take note of the experience, that in major public procurements, there is statistically a risk that one or more Candidates will be rejected because they fail to comply with the basic rules and regulations governing the competition, the qualification criteria and/or the obligation to submit adequate proof and documentation. These rejections are frequently unnecessary, and can be related to misunderstandings, bad project management, and/or simply not having read and adhered to the instructions set out in the Pre-qualification Documents.

On this background Helseplattformen has prepared this Check-list for the Candidate management, to ensure that the Candidate has submitted the requested deliverables and been pointed at some of the major and most consequential rules governing the procurement. The list is meant as a tool to assist in avoiding frequently made mistakes, and shall not be considered exhaustive. The Candidate must thus adhere completely to the instructions set out in the Pre-qualification Documents irrespectively of whether they have been included in the Check-list.

The following documentation and requirements therein has been checked out as precedent in the Pre-qualification Application:

A letter signed by the individual(s) legally representing the Candidate, with reference to the Candidate's organisational number (if applicable), stating the Candidate's intention to participate in the competition	☐
A completed Pre-qualification Questionnaire (Annex 1, including Attachment 1 and Attachment 2) and all documentation required therein, cf. requirement item # 1 – 15 and documentation items# 1A – 15A	☐
If the Candidate meets requirements by utilising other parties, he must complete Annex 5 for each business entity he relies on	(☐)
A completed Declaration on Corruption and Professional Conduct (Annex 7)	☐
A completed Certificate of Independent Bid Determination (Annex 8)	☐
A description of the environmental management measures applied by the Candidate	☐
The Pre-qualification Application shall be written in English	☐
The Candidates shall state a single point of contact	☐
The Candidate is aware of, and has used the opportunity to raise questions, if any, with the contracting authority	☐
The Pre-qualification Application must be delivered by electronic means (Mercell) no later than 12.00 CET on 17 October 2016	☐

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The undersigned represents and warrants that the information provided above to my knowledge is correct.

[Place, date, signature]

CEO [Candidate]

HELSEPLATTFORMEN
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Annex 1
Pre-qualification Questionnaire

Case number: 2016/238

PRE-QUALIFICATION QUESTIONNAIRE
Helseplattformen 2016

Instructions :

1) Answers shall be entered directly in the respective column for «Information required / Requirement», «Documentation required» and, if applicable, «Comments/Additional information».
2) Documentation requested shall be enclosed and marked with the applicable requirement number and the relevant sequence number.
3) If, for any valid reason, the Candidate is unable to provide the documentation requested under Part IV (Financial Requirements), he may prove his economic and financial standing by any other document which Helseplattformen considers appropriate.
4) The Candidates are informed, cf. the Pre-qualification Information Memorandum Section "4.3.2 The Declaration of Commitment", that the requirements stated in the Pre-qualification Questionnaire may be fulfilled by other companies, for instance parent companies, subcontractors, subsidiaries or other members of the consortium (if applicable). To the extent the Candidate does not meet the requirements himself, but aims to meet the requirements by utilising the experience or qualifications of such other parties, the Candidate is required to provide further details as well as documentation that such other party is obligated to deliver the relevant capacity to the Candidate, cf. Annex 5 (Declaration of commitment) to the Information Memorandum.
5) If the Candidate's official documentation is issued in any other language than English or Scandinavian (NO/SV/DK), the documents shall be translated into English. The official documents in the original language must also be included.

Questionnaire:

Item #	Information required (Items 1- 8) / Requirement (Items 9 – 15)	Documentation required (documentation sequence number is marked with [#])	Comments/additional information
PART I CANDIDATE INFORMATION			
1)	Full name of the Candidate.	A certified copy of a Certificate of Registration. [1A] Please provide a chart illustrating the ownership structure of the Candidate including relations to any parent company or other group or holding companies. [1B] If the Candidate is a consortium, a lead company shall be identified as responsible for the Pre-qualification Application. Furthermore, the role of the consortium members shall be described. [1C]	If the Candidate is a consortium information and documentation regarding all participants in the consortium must be provided in relation to information requirement 1 - 7. If documentation required under [1B] is not applicable, a statement explaining this is expected.
2)	For how long has the Candidate traded under this name?	A statement provided by the Candidate. [2A]	
3)	Previous name(s).	A statement provided by the Candidate. [3A] Please provide details of any mergers, acquisitions and demergers in the last three years or any pending mergers, acquisitions and demergers (to the extent such information can legally be provided). [3B]	If the information requirement is not applicable, a statement explaining this is expected.
4)	Last previous owner(s).	A statement provided by the Candidate. [4A]	If the information required is not applicable, a statement clarifying this is expected.
5)	Country, address, telephone number and	A statement provided by the Candidate. [5A]	

Item #	Information required (Items 1- 8) / Requirement (Items 9 – 15)	Documentation required (documentation sequence number is marked with [#])	Comments/additional information
	e-mail address of registered main office.		
6)	Name, address, telephone number and e-mail address of a single point of contact for the Candidate.	A statement provided by the Candidate. [6A]	
7)	Name, address and relationship of parent company-/ies and/or other shareholders (if applicable).	A statement provided by the Candidate. [7A]	If the Candidate is a publicly listed company, information giving the stock exchange where the Candidate is listed is sufficient.
8)	Please list the names of major subcontractors, and their intended role.	The Candidate's list of names and description of the role of the major subcontractors. [8A]	For the avoidance of doubt, major subcontractors are not required to list their respective subcontractors. If the information required is not available, a statement clarifying this is expected.
PART II ORGANISATION			
9)	The Candidate shall be a legally established company.	Norwegian companies: Copy of certificate of registration. [9A] Foreign companies: Proof of registration in trade register or registration in a register of business enterprises as described in the business legislation of the country where the company is established. [9B] Companies of all nationalities: Certificates shall not be older than 12 months calculated from the date set as deadline for delivery of the Pre-qualification Application.	It will be required that the Contractor to be awarded the Contract is a legally registered business entity within its jurisdiction. The business entity shall be responsible for the entire Turnkey delivery as set out in the Invitation To Dialogue (ITD).

Item #	Information required (Items 1- 8) / Requirement (Items 9 – 15)	Documentation required (documentation sequence number is marked with [#])	Comments/additional information
PART III COMPULSORY FORMAL REQUIREMENTS			
10)	The Candidate must have fulfilled his obligations relating to the payment of taxes and VAT in accordance with the legal provisions of Norway (only Norwegian Companies).	Norwegian companies: - Tax and VAT certificate [10A] Certificates shall not be older than 6 months calculated from the date set as deadline for delivery of the Pre-qualification Application.	Norwegian Companies: Any outstanding tax payments shall be duly explained.
PART IV FINANCIAL REQUIREMENTS			
11)	The Candidate shall have an economic and financial standing that makes the Candidate suitable as a supplier of EHR and adjacent systems and services, together with support and maintenance, and implementation and integration consultancy services, as a long-term partner for Helseplattformen. This includes having satisfactory liquidity and low risk of bankruptcy.	Financial statements from the last three years, or extracts from these (as a minimum: income statements and balance sheets). [11A] An auditor's certificate for each year shall also be enclosed. [11B] The documentation shall include latest available quarterly financial reports. [11C] The documentation shall include sufficient information for Helseplattformen to assess the indicators listed in the "Comments/Additional information" column. If available a long term credit rating from a recognised credit rating agency, e.g. Fitch, Moody's, D&B, or Standard & Poor's, not older than 12 months calculated from the date set as deadline for delivery of the Pre-qualification Application, may be included to substantiate the Candidate's financial standing. [11D] **Newly founded companies** shall enclose	Evaluation of the economic and financial standing will be based on the indicators listed below for the last three years. None of the indicators will individually have an absolute limit regarding the Candidate's fulfilment of the required standing. However, significant deviations from a single indicator may lead to rejection. A negative trend on some or a majority of the indicators may also lead to rejection. Total equity: The Candidate's total equity should not be lower than NOK 100 000 000, based on the exchange rate on the indicated date for "Invitation to participate in the Pre-qualification", stated in Section 2 in the Pre-Qualification Information Memorandum. Capital ratio: Calculated as total equity / (net interest bearing debt + total equity). A capital ratio exceeding 30% will in general be regarded as

<table>
<tr><th>Item #</th><th>Information required (Items 1- 8) / Requirement (Items 9 – 15)</th><th>Documentation required (documentation sequence number is marked with [#])</th><th>Comments/additional information</th></tr>
<tr><td></td><td></td><td>annual reports with annual accounts and audit reports (limited review) for the time the company has been in operation. [11E]
Note that it is of crucial importance for Helseplattformen that the Candidate is capable of performing according to the Contract during the entire contractual period on a continuous, uninterrupted basis.
In the ITD it will thus be included financial requirements in the contract. If the Candidate relies on another entity to comply financially, it must be expected that it will be required that the legal instruments comprising the support (e.g. a parent company guarantee) ensures that the Candidate and the supporting entity are jointly liable for the execution of the contract.</td><td>acceptable.
Operating profit margin (EBIT margin): The operating profit margin should be at least 5%.
EBITDA margin: EBITDA margin should be at least 8 %.
Interest coverage ratio: Interest coverage ratio = (Profit before taxes + Finance costs) / Finance costs. It is desirable to keep an interest coverage ratio above 2.0.
The long-term credit rating should have evaluation corresponding to the examples listed below.
<table>
<tr><th>Rating agency</th><th>Rating</th></tr>
<tr><td>Fitch</td><td>“BBB“ or higher</td></tr>
<tr><td>Moody’s</td><td>“Baa2” or higher</td></tr>
<tr><td>Standard & Poor’s.</td><td>“BBB” or higher</td></tr>
<tr><td>D&B</td><td>AA or higher</td></tr>
</table>
Audit remark: A remark from the auditor may have a material impact on the outcome of the qualification application.</td></tr>
<tr><td colspan="4">PART V TECHNICAL AND PROFESSIONAL QUALIFICATIONS</td></tr>
<tr><td>12)</td><td>The Candidate shall have the necessary capabilities and sufficient experience to fulfil its contractual obligations during the entire contractual period. The Candidate shall have relevant experience from deliveries of similar size and</td><td>The Candidate shall provide a list of the main deliveries of EHR solutions for the past three years. Evidence of delivery shall be given as a declaration by the Candidate with a statement, subject to confidentiality restrictions, referring to reference cases with a description of the</td><td>If the Candidate has had no new implementations the last three years, the Candidate may instead account for solutions currently in use.
A more extensive description shall be</td></tr>
</table>

Item #	Information required (Items 1- 8) / Requirement (Items 9 – 15)	Documentation required (documentation sequence number is marked with [#])	Comments/additional information
	complexity of EHR solutions and adjacent systems with support, together with support and maintenance, implementation, integration and consultancy services.	project, including: - name of country and brief description of the Customer, with contact information: name, role, e-mail address and phone number - description of the assignment including software and services - time of delivery, start and end of project - implementation size e.g. number of users, referrals and amount of data stored in the solution, - the Candidate's role, - total contract value (for the Candidate's part of the delivery), - and other relevant information suitable to determine the Candidate's experience from similar deliveries. [12A] Please complete Attachment 1: References. [12B]	made for at least one (1) and no more than three (3) of the most important and relevant deliveries/implementations of similar solutions made the last three (3) years. If the Candidate relies on other entities to fulfil this qualification requirement 12, at least one reference (relevant to the role of the other entity) must be made for each of the entities the Candidate relies upon.
13)	The Candidate shall have the necessary capacity to fulfil its contractual obligations during the entire contractual period on a continuous, uninterrupted basis. The Candidate shall have the necessary capacity to finalise, implement, support and maintain the system,	A documented description of the resources related to capacity available to the Candidate for delivery of a EHR solution as described in the Prequalification Information Memorandum Section 2.3 and Annex 4. [13A] The Candidate shall furthermore complete Attachment 2. [13B]	For the avoidance of doubt the same information (relevant to the role of the other entity) shall be provided for every business entity upon which the Candidate relies for fulfilling the qualification requirements (if any).

Item #	Information required (Items 1- 8) / Requirement (Items 9 – 15)	Documentation required (documentation sequence number is marked with [#])	Comments/additional information
	and to further development of the EHR solution.		
14)	The Candidate shall not have been convicted by a judgment which has obtained the force of res judicata in accordance with the legal provisions of the country of any offence concerning corruption or his professional conduct.	A completed Annex 7 signed by the Candidate. [14A]	The Candidate may also be rejected if he has been guilty of grave professional misconduct proven by any means which Helseplattformen can demonstrate.
15)	The Candidate shall be able to apply sufficient environmental management measures.	A description of the environmental management measures applied by the Candidate. [15A]	Concrete requirements related to the safeguarding of the environment must be expected to be included in the contract for the EHR solution.

Attachment 1 References (cf. Requirement 12):

Please note that the completion of this Attachment shall not exceed 2 pages for each reference. Any further details may be disclosed as a supplementary attachment.

Reference case number: [insert]	Candidate's Response
Description of the project/assignment:	
Name of country and brief description of the Customer, with contact information: name, role, e-mail address and phone number	
Description of the assignment including software and services	
Time of delivery, start and end of project	
Implementation size e.g. number of users, referrals and amount of data stored in the solution	
The Candidate's role	
Total Contract value (for the Candidate's part of the delivery)	
Oher relevant information suitable to determine the Candidate's experience from similar deliveries	

Attachment 2 to the Pre-qualification Questionnaire – Demonstration of capacity (cf. Requirement 13):

Please fill in the table for the Candidate (and any other company that the Candidate relies on for the fulfilment of qualification requirement 13 through a declaration of commitment).

NOTE: Do not include CVs in the application.

This Attachment is intended to demonstrate the capacity of the Candidate to perform the delivery of the EHR solution.

Note that the same employee may have more than one role.

	Per 31.12.2013	Per 31.12 2014	Per 31.12 2015	Latest available quarterly numbers 2016
• Number of employees – entire organisation				
Number of fulltime equivalent employees (FTEs) relevant for the tender. The same employee can have more than one role (but an employee cannot be counted as more than one fulltime equivalent)				
• Number of FTEs – Project management / Programme management				
• Number of FTEs – Application experts				
• Number of FTEs – Test and test management				
• Number of FTEs – Product development				
• Number of FTEs – Implementation/configuration consultants				
• Number of FTE's - Technical application consultants				
• Number of FTEs – Customisation/developers				
• Number of FTEs – Integration/interfaces				

	Per 31.12.2013	Per 31.12 2014	Per 31.12 2015	Latest available quarterly numbers 2016
• Number of FTEs – Data Migration				
• Number of FTEs – Infrastructure/installation				
• Number of FTEs – Support and maintenance				
• Number of FTEs – Training				
• Number of FTEs – Change Management				
• Number of FTEs – Health competencies (e.g. qualified physicians, nurses etc.)				

HELSEPLATTFORMEN
for pasientens helsetjeneste

Procurement of an EHR solution with adjacent systems and services

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Annex 2

Information on specialist and primary health care in Central Norway

Case number: 2016/238

Content

1 BACKGROUND AND PURPOSE

The purpose of this document is, as a background for understanding the scope of supply, purpose and intent of the EHR solution, to provide an overview of the specialist and primary health services in Central Norway.

2 INFORMATION ON SPECIALIST AND PRIMARY HEALTH SERVICES IN CENTRAL NORWAY

2.1 INTRODUCTION

The health services in Norway can be described as semi-decentralised[2]. The state has responsibility for specialist health services, administered by four Regional Health Authorities (RHFs), whilst the responsibility for primary care services lies with the country's 428 municipalities (with the exception of dental care which lies with the counties).

The Ministry of Health and Care Services (HOD) is responsible for the regulation and supervision of the system, but many of these tasks are delegated to various subordinate agencies, e.g. the Norwegian Directorate of Health, the Norwegian Directorate of eHealth, the Norwegian Institute of Public Health and the Norwegian Health Network.

The RHFs, which are separate legal subjects, are responsible for administering specialist health services. The activity of the RHFs is regulated by the 1999 Specialist Care Act, the 2001 Health Authorities and Health Trusts Act, and through general meetings between the minister and representatives from the RHFs. The RHFs own the Health Trusts, which are separate legal entities with their own responsibilities as employers.

The municipalities have a high degree of freedom in terms of how to organise and prioritise the primary care services. There is no direct command and control line from central authorities down to the municipalities. The central government's main responsibility is to assure the high quality of services across the municipalities through funding arrangements and legislation (e.g. the 2011 Health and Care Services Act).

The four health regions for specialist health care in Norway are West, South-East, Central Norway and North. The map below shows their locations, and highlights HMN's area.

[2] http://www.euro.who.int/__data/assets/pdf_file/0018/237204/HiT-Norway.pdf

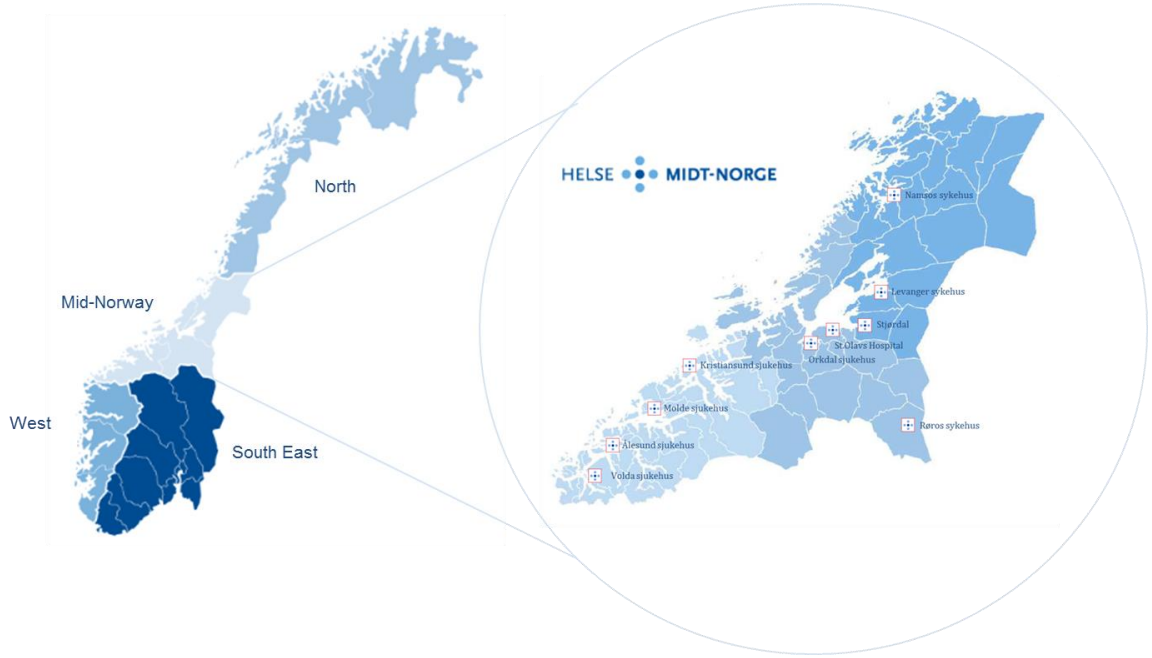

Figure 1 - Norwegian health regions and the Central Norway region

2.2 SPECIALIST HEALTH SERVICES

2.2.1 General

The specialist health service includes public hospitals and institutions within somatic medicine, mental health service, interdisciplinary specialised medication treatment and ambulance service. The service is organised in regional health authorities (RHF).

There are several laws regulating hospitals and the rights of patients, including the Specialist Care Act § 1-1 which has the following aim:

1. Promote public health and prevent illness, injury, suffering and disability
2. Contribute to ensuring the quality of services offered
3. Contribute to equal services
4. Contribute to optimal use of resources
5. Contribute to services tailored to patients' needs
6. Contribute to services being available to patients

The specialist health service includes, among other, the following:

- General hospitals
- Psychiatric institutions
- Outpatient clinics
- Institutions for training and rehabilitation
- Institutions for interdisciplinary specialised medication treatment
- Ambulance and pre-hospital services
- Specialists in private practice
- Laboratories and radiology services

- Private specialist institutions

2.2.2 The Central Norway Regional Health Authority (HMN RHF)

HMN bears the overall responsibility for all public hospitals and other specialist health services in the counties of Møre og Romsdal, Sør-Trøndelag and Nord-Trøndelag, as well as Bindal municipality in Nordland, covering about 717,000 citizens[3].

HMN is governed by the Norwegian Government and supervised through the Ministry of Health and Care Services (HOD). HMN is headed by a board of directors. The Government has full governance rights over the regional health authority by virtue of ownership. This authority is exercised by HOD.

HMN's vision is "Teaming with you for your health", with key values such as "security, respect and quality." HMN's defined objectives are:

- Strengthened efforts for large patient groups
- Knowledge-based patient care
- An organisation that supports quality of patient care
- The right expertise at the right time at the right place
- Financial sustainability

HMN is the regional link between HOD and the local Health Trusts. HMN is obliged to ensure that the population has access to high quality and equitable specialist health services when they need it, regardless of age, gender, geography, social or ethnic background. This is mainly done in two ways: through contracts with privately owned health providers (see section 4), and through the Health Trusts owned by HMN RHF: Helse Møre og Romsdal HF, St. Olavs Hospital HF, Helse Nord-Trøndelag HF and Sykehusapotekene i Midt-Norge HF. Trøndelag Ortopediske Verksted AS is owned by St. Olavs Hospital HF and controlled by the three Hospital Trusts in cooperation, providing orthopedic aids, such as prostheses.

In addition, the department called Central Norway Regional Health IT (HEMIT) is organised as an entity within HMN RHF with some degree of independence. HEMIT is HMN's internal supplier of IT services. Please see www.hemit.no for more information. Below is an illustration of the organisational chart of the Regional Health Authority.

[3] https://www.ssb.no/befolkning/statistikker/folkemengde/kvartal/2016-05-12?fane=tabell&sort=nummer&tabell=265361

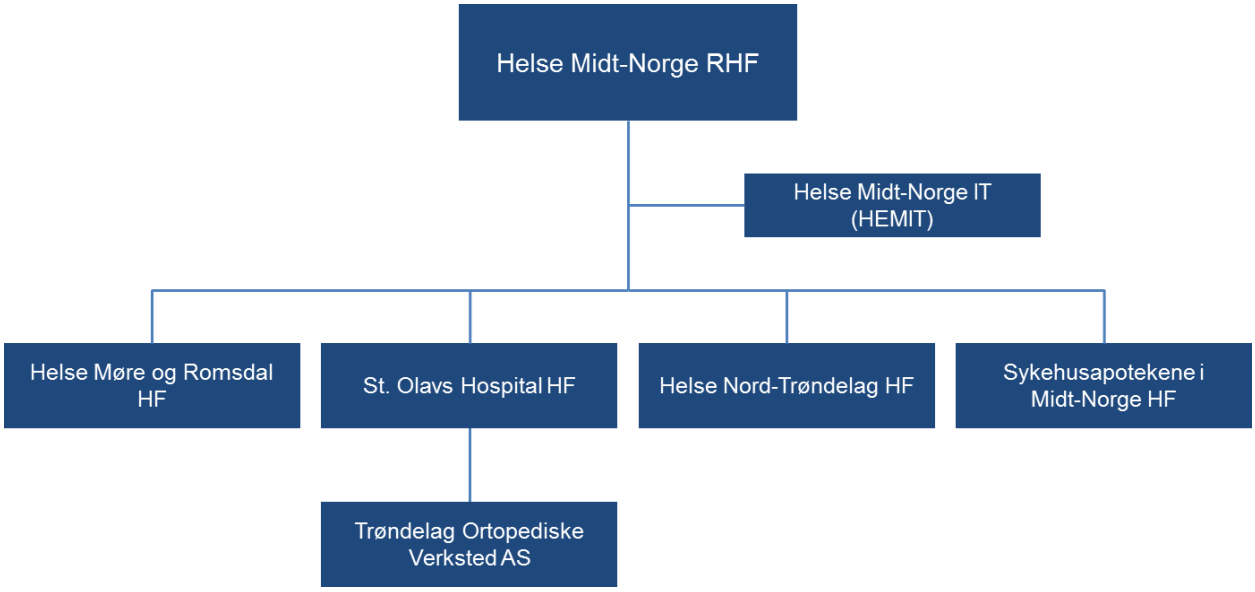

Figure 2 - Organisational chart of the Central Norway Regional Health Authority

Furthermore, HMN RHF has responsibility for the region's ambulance services. The services are operated by the Hospital Trusts and comprise of close to 70 ambulance stations, 5 ambulance boats and 120 ambulance cars[4]. There is also a helicopter service and aeroplane ambulance in the region that is operated through a national organisation owned by the four Regional Health Authorities.

In addition, HMN RHF is responsible for patient transport services and finance (through an agreement with a private operator), three patient travel offices located in Møre og Romsdal, Sør-Trøndelag and Nord-Trøndelag, as well as national cooperation for reimbursement and settlements.

Key financial and organisational figures for HMN RHF are found in the table below. Further information is to be found at: www.helse-midt.no.

Key figures HMN RHF[5]			
Population[6]	717 000	Employees HMN 2015 in total	22 202
Allocated funding 2016	22 billion NOK	FTE 2015 RHF administration (incl. HEMIT)	417
		Headquarters	Stjørdal

Table 1 - Key figures HMN

[4] https://helse-midt.no/om-oss/nokkeltall/nokkeltall-om-ambulansetjenesten

[5] Annual report HMN RHF 2015 https://ekstranett.helse-midt.no/1001/Foretaksmter/Styrets%20årsberetning%20og%20årsregskap%20HMN%20RFH%202015.pdf

[6] https://www.ssb.no/befolkning/statistikker/folkemengde/kvartal/2016-05-12?fane=tabell&sort=nummer&tabell=265361

Figure 3 – Map of HMN region

The map illustrates the health region of Central Norway with markings for the location of hospitals and the HMN headquarter located in Stjørdal.

2.2.3 Helse Møre og Romsdal HF

Helse Møre og Romsdal HF provides health services for the citizens in Møre og Romsdal county (with exceptions Rindal municipality, which is covered by St Olav's Hospital HF for somatic services). The Health Trust comprises four hospitals named Ålesund sjukehus, Volda sjukehus, Molde sjukehus and Kristiansund sjukehus, and several smaller institutions, e.g. rehabilitation centres in Mork and Aure, five district psychiatric centres (DPS) and a district medical centre in Sunndal. The HF is organised in 12 clinics and several staff units.

Helse Møre og Romsdal and HMN have decided to build a new hospital for Nordmøre og Romsdal, which is scheduled to be completed in 2021. The new hospital will replace Molde sjukehus and Kristiansund sjukehus, thereby covering approximately 118 000 citizens.

Key figures Helse Møre og Romsdal HF[7,8]			
Population (1.1.2016)[9]	263 254	Employees 2015	6 500
No. Municipalities	35	FTEs 2015	4 000
Budget 2016	ca. 5,5 billion NOK	No. hospitals	4
		No. DPS	5

Table 2 – Key figures Helse Møre og Romsdal HF

2.2.4 St. Olavs Hospital HF

St. Olavs Hospital HF provides specialist health services for roughly 300 000 citizens distributed across municipalities in the county of Sør-Trøndelag (with exception of Roan and Osen municipalities that are covered by Helse Nord-Trøndelag HF) and Rindal municipality in Møre og Romsdal county. The university hospital in Trondheim is additionally responsible for providing services to specified patient groups across the whole of the Central Norway Health Region and nationally. The Health Trust comprises the hospitals St. Olavs Hospital (the university hospital in Trondheim), the local departments Orkdal Sykehus and Nye Røros Sykehus. The HF has three district psychiatric centres (DPS), two located in Trondheim and one in Orkdal. The HF is organised in 20 clinics and several staff departments.

St. Olavs Hospital is the university hospital in HMN and has a regional responsibility as an educational institution for health personnel as well as other responsibilities such as patient treatment, training of patients/next of kin and research. The education of health personnel is undertaken in collaboration with NTNU where the main strategy is "quality improvement through an integrated university hospital, standardised health trajectories and optimal use of resources".

Key figures St. Olavs Hospital HF[10,11]			
Population (1.1.2016)[9]	313 469	Employees 2015	10 411
No. Municipalities	24	FTEs 2015	7 948
Budget 2016	ca. 9,3 billion NOK	No. hospitals	3
		No. DPS	3

Table 3 – Key figures St. Olavs Hospital HF

2.2.5 Helse Nord-Trøndelag HF

Helse Nord-Trøndelag HF provides specialist health services for the citizens in Nord-Trøndelag county, the municipalities Roan and Osen in Sør-Trøndelag and the municipality of Bindal in Nordland county. The HF has local hospitals in Levanger and Namsos, district psychiatric centres in Kolvereid and Stjørdal, decentralised outpatient services within somatic medicine and psychiatry in

[7] https://helse-mr.no/om-oss

[8] Annual report HMR HF 2015: https://ekstranett.helse-midt.no/1011/Sakslite%20og%20protokoll/Sak%202016-13%20-%20Vedlegg%2001%20-%20Årsberetning%202015.pdf

[9] https://www.ssb.no/befolkning/statistikker/folkemengde/kvartal/2016-05-12?fane=tabell&sort=nummer&tabell=265361

[10] https://stolav.no/om-oss

[11] Annual report St.Olavs Hospital HF 2015: https://ekstranett.helse-midt.no/1010/Sakspapirer/11-16%20Vedlegg%202%20-%20Styrets%20beretning.pdf

Kolvereid, Steinkjer og Stjørdal and regional competency centre for eating disorders in Levanger and Stjørdal. The HF is organised in 10 clinics and several staff units.

Key figures Helse Nord-Trøndelag HF[12]			
Population (1.1.2016)[9]	139 801	Employees 2015	ca. 3 600
No. Municipalities	26	FTEs 2015	ca. 2 750
Budget 2016	ca. 3,3 billion NOK	No. hospitals	2
		No. DPS	2

Table 4 – Key figures Helse Nord-Trøndelag HF

2.2.6 Sykehusapotekene i Midt-Norge HF

Sykehusapotekene i Midt-Norge HF own and operate the hospital pharmacies in Namsos, Levanger, Trondheim, Kristiansund, Molde and Ålesund. The business administration is located in Trondheim. The hospital pharmacies' primary objective is to deliver pharmaceutical services to ensure right use of pharmaceuticals and contribute to a cost-effective and secure distribution of pharmaceuticals. The pharmacies offer advice and expertise to its customers, as well as production of pharmaceuticals to hospitals and other pharmacies in the region. The HFs' operations is financed by profits from sales of pharmaceuticals to the hospitals and external customers, sales of services and a yearly grant for further development of clinical pharmaceutics.

Key figures Sykehusapotekene i Midt-Norge HF[13]			
No. Pharmacies	6	No. Customers 2015	296 841
Employees 2015	235	Total revenue 2015	907 million NOK
FTEs 2015	179		

Table 5 – Key figures Sykehusapotekene i Midt-Norge HF

2.3 PRIMARY HEALTH CARE (INCLUDING GP)

2.3.1 General

The municipal health services are publicly organised primary care services. The municipalities provide health services to its citizens through municipality owned entities or private health businesses operated in agreement with the municipalities. Usually a referral from the primary health service is required for services in the specialist health care.

The Health and Care Services Act replaces the former Act relating to the municipal health services and parts of the Act relating to social services. For information about GPs, see section 2.3.4.

[12] https://hnt.no/om-oss

[13] Sykehusapotekene i Midt-Norge HF annual report 2015: https://ekstranett.helse-midt.no/1001/Foretaksmter/%C3%85rsberetning%20og%20%C3%A5rsregnskap%202015%20Sykehusapotekene%20i%20Midt-Norge%20HF.pdf

2.3.2 Information about the municipalities in Central Norway

The Central Norway Health Region covers the counties of Møre og Romsdal, Sør-Trøndelag and Nord-Trøndelag along with Bindal municipality in Nordland county, giving a total of 85 municipalities. Each municipality has their own local authority responsible for all local services for their population. The settlement pattern in the region is scattered, but infrastructure and communications are good. Many of the larger islands are connected to the mainland, however a few are dependent on ferries. The table below provides information about the number of municipalities in each county in relation to the population. Note that these figures are by county and not by Health Trusts, and the municipality of Bindal is therefore not included, i.e. there are only 84 municipalities in the table below.

County	Residents (1.1.2016)	No. municipalities	No. municipalities by the number of citizens				
			0-1 999	2 000-4 999	5 000-9 999	10 000-19 999	20 000+
Møre og Romsdal	265 290	36	4	14	14	1	3
Sør-Trøndelag	313 370	25	5	9	7	3	1
Nord-Trøndelag	136 399	23	8	8	2	3	2
Sum Central Norway	**715 059**	**84**	**17**	**31**	**23**	**7**	**6**

Table 6 – Municipalities in Central Norway[9]

Table 7 – Number of regular GPs and key numbers for municipal health in Central Norwayshows an overview of key figures related to municipal health services in Central Norway.

County	No. regular GPs[14]	Nursing homes[15]	Employees 2014[16]	FTEs 2014[16]
Møre og Romsdal	262	62	8 100	6 696
Sør-Trøndelag	282	58	8 414	6 800
Nord-Trøndelag	132	32	4 510	3 571
Sum Central Norway	**676**	**152**	**21 024**	**17 067**

Table 7 – Number of regular GPs and key numbers for municipal health in Central Norway

[14] https://tjenester.nav.no/minfastlege/innbygger/fastlegesokikkepalogget.do (18th of May 2016)

[15] http://helseadresser.no/1/gruppe/2159/16/ , http://helseadresser.no/1/gruppe/2159/17/ , http://helseadresser.no/1/gruppe/2159/15/

[16] https://www.ssb.no/statistikkbanken/selectvarval/Define.asp?subjectcode=&ProductId=&MainTable=HelssosSektor&nvl=&PLanguage=0&nyTmpVar=true&CMSSubjectArea=arbeid-og-lonn&KortNavnWeb=hesospers&StatVariant=&checked=true

The Health and Care Services Act specifies the following:

- The municipality must ensure that people who reside in the municipality are offered the necessary health and care services
- The municipality's responsibility includes all citizens and patients, including people with somatic or psychological illnesses, injuries or disorders, substance abuse problems, social problems or disabilities
- The municipality's responsibility includes the duty to plan, implement, evaluate and adjust the operations such that the scope and content of the services are in accordance with requirements specified in laws or regulations. The Ministry may, by regulations, issue more detailed provisions concerning the content of the duties
- The municipality's health service include publicly organised health services that do not come under the control of the state or county administration
- Services may be provided by the municipality itself or by the municipality entering into agreements with other public or private service providers. The agreements may not be transferred

2.3.3 About the City of Trondheim (TCT) in particular

TCT is the third largest municipality in the country with a population of about 185,000 and it is located in Sør-Trøndelag county. As of June 2016, the municipality had approximately 3,850 FTEs and a headcount of 5,800. The City Council is the highest level of local authority. The municipality is administered by the "Municipal Executive Board", with the Chief City Executive as the administration's chief executive. The municipality will provide services and undertake development activities in the society for the benefit of the citizens. The municipality has the overall responsibility for health services, with freedom to organise and adapt the service offering according to local needs. Municipalities and specialist health services are both required to support the co-ordination of services.

Primary health services in Norway are widespread and over 80% of patients receive treatment in the municipalities. Unlike hospitals, where treatment is most often based on diagnosis, the municipalities' approach is based on the patients' functional abilities, regardless of whether they have one or more diagnoses. Trondheim have developed integrated care pathways that are diagnosis independent, knowledge-based generic pathways. This model is now being extended nationally in collaboration with other European environments. A particular area of focus is early intervention. This includes everyday rehabilitation, everyday self management as well as home visits, where the approach is to increase the patient's independence and the focus is on functional abilities and patient empowerment.

The organisation of health and welfare services in Trondheim, as of June 2016, is as follows:

The City Executive for Health and Welfare Services has the everyday responsibility for services. To support this there are 62 established organisational units that provide daily services to the citizens that require this. The units are distributed as follows:

- Units for substance abuse and psychiatry, 3 units
- Centre for substance abuse and psychiatry, *3 divisions that are integrated in existing units*
- Refugee health services, *1 division that is integrated in an existing unit*
- Prison health services, *1 division that is integrated in an existing unit*
- Unit for service and internal control, 1 unit
- Unit for occupational therapy services, 1 unit

- Unit for physiotherapy services, 1 unit
- Unit for GP services and communicable disease control and prevention, 1 unit (including 170 GPs)
- Unit for safety patrol, 1 unit
- Out-of-hours emergency primary health care, 1 unit (also responsible for the citizens of Klæbu, Malvik, Melhus and Midtre Gauldal municipalities)
- Unit for home services, 1 unit (cleaning of houses)
- Management offices, 2units
- Rehabilitation centres, 3 units (1 located in Spain)
- Community hospitals, 3 units
- Health and welfare centres (nursing homes), 25 units (3 of these units are private) with 1550 beds
- Home care service, 11 units
- Daily living and activity services, 8 units (for varying degrees of disabilities, providing services in homes and organised activity)

2.3.4 What are the municipalities' responsibilities?

All municipalities in Norway must ensure necessary health services for all persons living or temporarily staying in the municipality. It is not a requirement that a person has to be resident in a municipality in order to be entitled to health services in the municipality. Municipal health services are, amongst other:

- Medical service
- Out-of-hours emergency primary health care
- Physiotherapy
- Rehabilitation
- Palliative care
- Community hospitals
- School medical service
- Midwife service
- Nursing homes and housing with round-the-clock care
- Home nursing care
- Infection control service
- Environmental health
- Information activities
- Prison health service (for municipalities where this exists)

2.3.5 Information about the Regular General Practitioner Scheme

The municipalities are required by law to provide necessary general practitioner (GP) service to anyone residing permanently or temporarily in the municipality[17]. The service is organised in the frames of a list patient system, where all citizens are offered to be registered with a regular GP.

[17] Forskrift om fastlegeordning i kommunene, https://lovdata.no/dokument/SF/forskrift/2012-08-29-842

The regular GP function mainly includes self-employed physicians that have agreements with the municipality. Through this agreement the municipality can claim the GP to work until 7.5 hours weekly in public services as nursery home, preventive health service for children, school medical service or prison health service. Municipal management of the regular GP scheme takes place mainly through entering into and following-up of the individual agreements, and through discussion of current topics in the local works council (LSU – lokalt samarbeidsutvalg). The municipality must ensure there are enough positions for regular GPs to meet the primary health care needs for the population. They are also required to participate in the municipal or inter-municipal emergency care service (OOH, Out-of-hours on-call duty) outside of regular working hours.

In addition to ordinary primary health care, the regular GPs have a medical coordinating role and are obliged to cooperate with other relevant service providers for the citizens on their list.

2.3.6 Regular GPs in Central Norway

Many regular GPs are self-employed and commonly organised in smaller medical centres consisting of 2-7 physicians. In Nord-Trøndelag there are currently 132 regular GPs across 38 medical centres, in Sør-Trøndelag there are 282 regular GPs across 68 medical centres, and in Møre og Romsdal there are 262 regular GPs across 65 medical centres[18].

3 OTHER ACTORS – SPECIALIST

3.1 CONTRACT SPECIALISTS («AVTALESPESIALISTER»)

Contract specialists are private practicing physicians or psychologists that receive operating subsidies from the state. The contract specialists assess and treat conditions that do not require hospitalisation, corresponding to the hospitals' outpatient departments. Contract specialists offer assessment and treatment by referral from GPs or other health care professionals with referral rights. Without a referral the operating subsidy does not apply and the patient must cover all costs of the treatment. With a referral the patient will pay the same amount as for equivalent treatment at a public hospital.

The contract specialists have individual contracts with the regional health authorities (RHFs). HMN has contracts with specialists within 16 disciplines and these are an important contribution to ensuring outpatient service as close to the patients' homes as possible. HMN had agreements with 144 contract specialists by the end of 2015.

3.2 PRIVATE/NON-PROFIT HOSPITALS AND INSTITUTIONS

HMN has agreements with several private hospitals and others who provide specialised treatment. The agreements are linked to specific treatments and services, for instance services where there are significant waiting times / capacity issues at the public hospitals or special services. HMN has agreements with the following types of private actors:

[18] https://tjenester.nav.no/minfastlege/innbygger/fastlegesokikkepalogget.do

- Hospitals with agreed treatment services such as orthopaedics, non-cosmetic plastic surgery and general surgery, ESWT and sleep studies.
- Training and rehabilitation institutions
- Physical medicine
- Substance abuse treatment institutions
- Radiology institutions

4 OTHER ACTORS - PRIVATE AND NON-PROFIT ACTORS WITH CONTRACTS WITH MUNICIPALITIES

The municipalities are largely free to choose how to organise its services, as long as it meets the requirements of the Municipal Health Services Act. The regulation dictates that the municipalities can choose whether they will perform the services they are required to perform themselves, or purchase the services from a private or non-profit provider. Purchases must be made in accordance with the Public Procurement Act.

The non-profit and private entities may for example provide operating services for nursing homes, home services, housing for users of substance abuse and psychiatric services, persons with developmental disabilities, relief services, user-controlled personal assistance (BPA) and physiotherapy.

Some municipalities have free choice of treatment for some of the services they provide to their citizens. The citizen chooses a service provider and the municipality pays the supplier hourly for service performed, for example in home care. There are also municipalities with free choice of nursing homes and the citizen can choose between nursing homes regardless of whether it is a private/non-profit or municipal nursing home.

HELSEPLATTFORMEN
for pasientens helsetjeneste

Procurement of an EHR solution with adjacent systems and services

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Annex 3

List of Customers

Case number: 2016/238

Content

1 PURPOSE

This Annex 3 lists the Customers under the Contract for the EHR solution. The listed Customers are organised and financed in various ways, but all have in common that they are a part of the Central Norway Health Region[19]. The list of Customers thus expresses the broad cooperation that comprises Helseplattformen, to the benefit of the patient.

For each individual Customer potential users are listed, cf. Annex 4, Section 5. During the term of the Contract the Customers will be entitled to having delivered, as ordered, the parts of the EHR solution that are relevant to the particular Customer.

The ITD will further describe how purchases will be made, the assumptions that the implementation plan must take into account, and in what way the various individual Customers will interface with the Contractor over the term of the Contract as participants in Helseplattformen.

2 CUSTOMERS

2.1 GENERAL

The Customers under the Contract shall be considered as any actors in the treatment of patients in the Central Norway Health Region, in the present and in the future.

The specific list of Customers reflects the current organisational structure. For a procurement with an expected lifespan as long as Helseplattformen, it must be assumed that there may be changes made to this structure at some point in time. The Customers shall thus be understood to include public entities, as well as other non-profit and/or privately owned providers of health services in the Central Norway Health Region, that are established during the term of the Contract.

2.2 THE CENTRAL NORWAY HEALTH REGION TRUSTS

The Customers within the specialist health services is the Central Norway Health Region (Helse-Midt Norge, hereafter HMN), and their Health Trusts/subsidiaries as set out in Table 8 Health Trusts.

Health Trusts
Central Norway Regional Health Authority (HMN RHF)
Helse Møre og Romsdal HF
Helse Nord-Trøndelag HF
St. Olavs Hospital HF
Sykehusapotekene i Midt-Norge HF

Table 8 Health Trusts

[19] Geographical area comprising the counties of Møre og Romsdal, Sør-Trøndelag and Nord-Trøndelag along with Bindal municipality in Nordland county

2.3 THE MUNICIPALITIES IN THE CENTRAL NORWAY HEALTH REGION

The 85 municipalities, together with enterprises established by, or contracted by, the municipalities to deliver health services, in the Central Norway Health Region are Customers under the Contract.

The municipalities will obtain options to acquire the EHR solution within the lead times and otherwise on the terms and conditions that will be agreed for options.

Helseplattformen has received powers of attorney from the municipalities listed in Table 9.

Sør-Trøndelag:

Municipality	Population (number of citizens 1.1.2016[20])
Agdenes	1 733
Bjugn	4 779
Frøya	4 799
Hemne	4 260
Hitra	4 622
Holtålen	2 031
Klæbu	6 067
Malvik	13 738
Meldal	3 954
Melhus	16 096
Midtre Gauldal	6 298
Oppdal	6 886
Orkdal	11 779
Osen	976
Rennebu	2 562
Rissa	6 644
Roan	961
Røros	5 635
Selbu	4 132
Skaun	7 755
Snillfjord	978
Trondheim	187 353
Tydal	851
Ørland	5 209
Åfjord	3 272

[20] https://www.ssb.no/befolkning/statistikker/folkemengde/kvartal/2016-05-12?fane=tabell&sort=nummer&tabell=265361

Nord Trøndelag:

Municipality	Population (number of citizens 1.1.2016[20])
Flatanger	1 103
Fosnes	633
Frosta	2 631
Grong	2 466
Høylandet	1 250
Inderøy	6 769
Leka	562
Leksvik	3 531
Levanger	19 610
Lierne	1 375
Meråker	2 523
Namdalseid	1 622
Namsos	13 010
Namsskogan	867
Nærøy	5 126
Overhalla	3 825
Røyrvik	469
Snåsa	2 139
Steinkjer	21 781
Stjørdal	23 308
Verdal	14 885
Verran	2 527
Vikna	4 387
Bindal	1 464

Møre og Romsdal:

Municipality	Population (number of citizens 1.1.2016[20])
Aukra	3 518
Aure	3 536
Averøy	5 826
Eide	3 467
Fræna	9 717
Giske	8 094
Gjemnes	2 593
Halsa	1 547
Haram	9 200
Hareid	5 189
Herøy	8 972
Kristiansund	24 526
Midsund	2 088
Molde	26 732
Nesset	2 970
Norddal	1 652
Rauma	7 492
Rindal	2 036
Sande	2 559
Sandøy	1 270
Skodje	4 620
Smøla	2 141
Stordal	1 020
Stranda	4 598
Sula	8 952
Sunndal	7 160
Surnadal	5 969
Sykkylven	7 675
Tingvoll	3 103
Ulstein	8 430
Vanylven	3 256
Vestnes	6 611
Volda	9 037
Ørskog	2 310
Ørsta	10 677
Ålesund	46 747

Table 9 Municipalities that have given Helseplattformen a power of attorney

2.4 OTHER CUSTOMERS

2.4.1 PUBLIC ENTITIES

All publicly owned entities providing health services in the Central Norway Health Region shall be regarded as Customers of the Agreement.

2.4.2 PRIVATELY OWNED ENTITIES

The EHR solution will potentially be used by private companies who are given the right to become users of Helseplattformen, which in such a case shall also be regarded as Customers to this procurement. This includes:

- General Practitioners ("fastleger")
- Non-profit foundations
- Private institutions
- Contract specialists ("avtalespesialister")
- Other actors

2.4.3 OTHER ENTITIES PROVIDING HEALTH SERVICES IN THE CENTRAL NORWAY HEALTH REGION

The EHR solution will potentially be used by entities providing health services in the Central Norway Health Region. In particular these include, but are not limited to:

- The National Air Ambulance Services of Norway

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Annex 4
Description of the functional scope of the procurement

Case number: 2016/238

Content

1 PURPOSE

This Annex sets out the functional scope of the procurement for the EHR solution which is aligned to the overall objectives for Helseplattformen, cf. the Pre-qualification Information Memorandum Section 2.2. Note that due to embedded uncertainties in deciding the final scope, the scope is envisaged to be amended and adapted both in the ITD documents that will be submitted to Pre-qualified Candidates, and in the subsequent dialogue phase.

2 GENERAL

The functional scope is described in three dimensions: i) the users of the EHR solution (c.f. Section 4), ii) the areas (capabilities) of the enterprise that the new EHR solution shall support, and iii) the ICT functionalities that the EHR solution must include to support these capabilities.

The Norwegian Directorate of eHealth's (NDE) Health and Care actor model, published as an attachment to *"Én innbygger – én journal"*[21], has been used as a starting point and adapted in order to define the users of the new EHR solution.

The Norwegian Directorate of eHealth's (NDE) capability model, published as an attachment to *"Én innbygger – én journal"*[22], which describes the enterprise capabilities that are necessary to provide health and care services to citizens, has been used as a starting point and adapted in order to define which areas (capabilities) of the health services the solution shall support.

The HL7 Electronic Health Records-System Functional Model, Release 2[23] has been used to define the ICT functionalities that the EHR solution must include to support the different capabilities.

3 ENTERPRISE CAPABILITIES AND ICT FUNCTIONALITIES TO BE SUPPORTED

3.1 ENTERPRISE CAPABILITIES TO BE SUPPORTED

3.1.1 INTRODUCTION

The Norwegian Directorate of eHealth's (NDE) capability model describes the health service in four main areas:

- Management and direction
- Core services
- Clinical support services
- Facilitation

[21] https://ehelse.no/Documents/En%20innbygger%20-%20en%20journal/V3.1%20E-helsekapabiliteter_1.0.pdf

[22] https://ehelse.no/Documents/En%20innbygger%20-%20en%20journal/V3.1%20E-helsekapabiliteter_1.0.pdf

[23] http://www.hl7.org/implement/standards/product_brief.cfm?product_id=269

These main areas are broken down further into enterprise capabilities such as quality and patient safety, assessment of health condition, nursing, care and palliative care, laboratory tests, emergency and preparedness management and others. The model has in total 85 sub-capabilities on the lowest level. For a detailed description of the model, see Attachment 1: The Enterprise Capability Model used for Helseplattformen.

The following figures outline the enterprise capabilities to be supported by the new EHR solution. The capabilities highlighted green are the areas where the new solution shall have supporting functionality. Further details about the level of functionality, i.e. the minimum requirement for the functionality to be included or integrated, as well as functionalities to be included as options, will be specified in the ITD documents.

For the enterprise capabilities marked white, the Customer will not be requesting supporting functionality. However some of these capabilities may require support in form of an integration to other systems.

3.1.2 MANAGEMENT AND DIRECTION

This area includes capabilities that are necessary to exploit the political, technological, knowledge-related, financial and organisational opportunities in order to ensure residents are provided with the best possible health services.

The figure below illustrates which enterprise capabilities need to be supported with functionalities in the solution.

Figure 4: Management and direction enterprise capabilities to be supported by the new solution

3.1.3 CORE SERVICES

This area includes enterprise capabilities that are necessary to provide the level of healthcare the residents need and are entitled to. Figure 5 illustrates which enterprise capabilities need to be supported with functionalities in the solution.

It is vital that the new solution meets the future health service's needs by supporting the use of personal connected health and care (PCHC) technology. This is reflected in the scope by including the enterprise capabilities patient communication and the sub-capability individually customised communication.

Patient empowerment is statutory and the new solution must facilitate this, i.e. the solution must emphasise the patient's ability to manage their own health, make their own decisions, register their own information, contribute with their own experience and understanding of their own situation etc. This is reflected in the scope by the capability patient communication.

Nevertheless, patient communication may alternatively be included as an option in the procurement as it is uncertain whether the functionalities will be provided through the existing *Helsenorge.no* portal only or included in the solution (in addition to *Helsenorge.no*).

Parts of the chain of emergency care may also be included as an option due to uncertainties about whether the emergency medical communication centre system will be included in the solution or integrated.

Note that pregnancy, childbirth and the puerperium will be included as part of the nursing, care and palliative care capability and intensive care will be included as part of the invasive care capability.

Figure 5: Core services enterprise capabilities to be supported by the new solution

3.1.4 CLINICAL SUPPORT SERVICES

This area includes enterprise capabilities that directly enable, and thus are closely linked to, the core services. Figure 6 illustrates which enterprise capabilities need to be supported with functionalities in the solution. Radiological examinations will be included as an option due to uncertainties about whether the Radiology Information System (RIS) will be included in the solution or integrated.

Note that the enterprise capability laboratory tests is classified as in scope for the sub-capabilities sampling and test result reporting. Functionality for ordering sample tests and receiving and presenting test results will be included in the solution. For the specialist health services, there will be no functionality included for sample analysis and sampling. The municipality health services, however, will require this but with less complex functionality (solution) than the specialist health service's need.

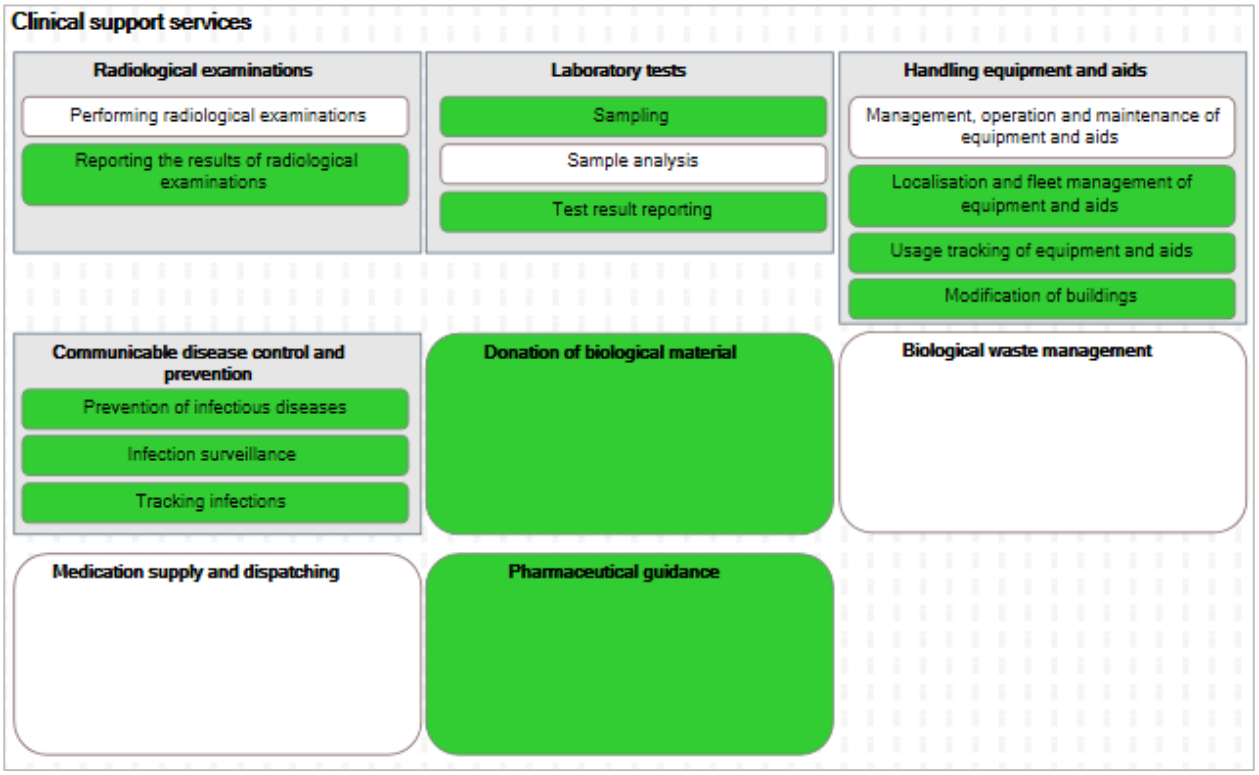

Figure 6: Clinical support services enterprise capabilities to be supported by the new solution

3.1.5 FACILITATION

The enterprise capabilities within this area support the core services and ensure stable and well-functioning daily operations. Figure 7 illustrates which enterprise capabilities need to be supported with functionalities in the solution. The enterprise capability settlements has been defined as in scope, however this only applies to the municipal health services (i.e. the specialist health services will not request any supporting functionality for settlements).

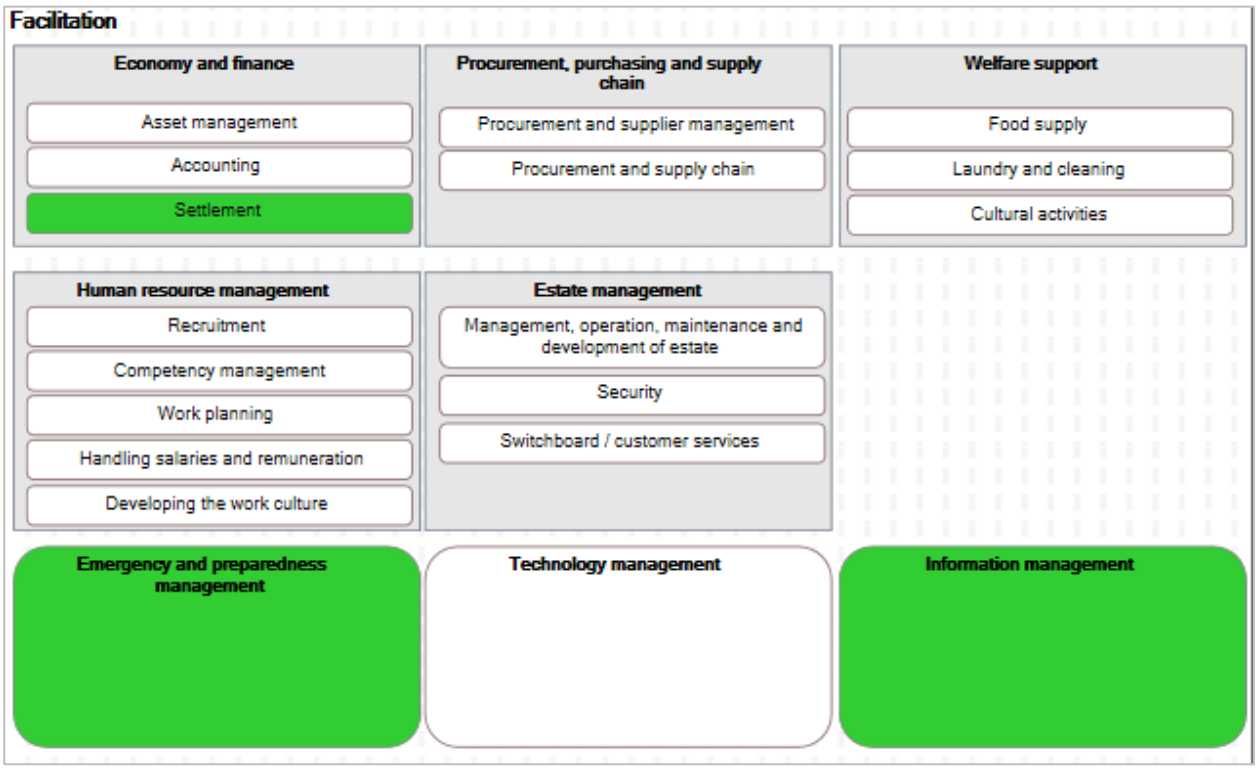

Figure 7: Facilitation enterprise capabilities to be supported by the new solution

3.2 ICT FUNCTIONALITIES TO BE INCLUDED

The functionality required to ensure the enterprise capabilities are sufficiently supported by the new solution will be defined by referring to the relevant sections of the HL7 Electronic Health Records-System Functional Model, Release 2[24]. The scope of the project covers the majority of the HL7 EHR-S Functional Model.

In addition, the Customer will develop further requirements for the enterprise capabilities that require functionality beyond what is included in the HL7 EHR-S Functional Model. This may for instance include requirements that are necessary to support some municipal health services, where the municipal health services/ GPs need functionality that exceeds the needs of the specialist health services.

For instance, the municipal health service will require additional functionality within the "Administration of Healthcare" capability (all statutory, and most other services, require an assessment and decision-making process where the citizen has the right to appeal if dissatisfied with the service provided, calculation of nursing homes fees, as well as submissions to IPLOS (statutory health register for municipal health services) and NOARK5 (standard for recordkeeping which requires record structure, metadata and functionality)).

[24] http://www.hl7.org/implement/standards/product_brief.cfm?product_id=269

4 THE USERS OF THE EHR SOLUTION

For information purposes the table below lists users of the EHR solution. The uncertainties related to final scope imply that the scope of actors will be clarified during the dialogue phase of the procurement. This is described in the column "Comment".

The table also explains in the column "Comment" that collaboration with actors who are not offered/required to use the solution will be offered integration through the national collaboration platform. Where integration is specified in the column called "Use of solution", this indicates that there will be closer collaboration between Helseplattformen and the relevant actor's solution than what the current national collaboration platform offers.

Actors/users	Use of solution	Comment
Municipal and county health services		
Regular GP	Yes	GPs will use the solution subject to an agreement with the municipalities. Actors who are not offered/required to use the solution will be offered integration through the national collaboration platform.
Emergency primary health care	Yes	
Health centre/school health	Yes	
Nursing home/ other institution	Yes	
Home services	Yes	
Prison health services	Yes	
Other municipal health and care services	Yes	Consists of many sub-areas/specialist functions. Most of these will be included.
Private/non-profit actors	Yes	To be included as options. Private/non-profit actors will use the solution subject to an agreement with HMN. Actors who are not offered/required to use the solution will be offered integration through the national collaboration platform.
Public dental service	No	Collaboration continues through the national collaboration platform.

Actors/users	Use of solution	Comment
Specialist health services:		
Public hospitals	Yes	
Emergency Medical Communication Centre (EMCC)	Yes	
Contract specialist ("Avtalespesialist")	Yes	Contract specialists will use the solution subject to an agreement with HMN. Actors who are not offered/required to use the solution will be offered integration through the national collaboration platform
Hospital pharmacy	Integrated	Close integration with Helseplattformen
Ambulance	Yes	Either as integration or option
Air ambulance	Yes	Either as integration or option
Private/non-profit hospitals/institutions	Yes	To be included as options Private/non-profit hospitals/institutions will use the solution subject to an agreement with HMN. Actors who are not offered/required to use the solution will be offered integration through the national collaboration platform
Private labs and X-ray	Integrated	Collaboration through the national collaboration platform or closer integration with Helseplattformen

Table 10 The users of the EHR solution

Collaboration with public hospitals, municipalities and GPs outside of the Central Norway Health Region will take place through the national collaboration platform, i.e. Helseplattformen continues collaboration through the national collaboration platform for all actors outside of Helseplattformen.

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Annex 5

Declaration of Commitment (template)

Case number: 2016/238

DECLARATION OF COMMITMENT (TEMPLATE)

This declaration is made by:

Company	
Business register number	
Registered business address	

[Company] hereby confirms that it has a contractual obligation to make available for [Candidate] resources and capacity in connection with the [Candidate's] Pre-qualification Application and tender for the provision of an EHR solution with adjacent systems and services, insofar as the Candidate has stated in its Pre-qualification Application that it will utilise the [the Company's] resources and capacity in order to meet the qualification criteria described in the Information Memorandum dated [date].

The resources and capacity made available relates to the following areas: [brief description of scope of commitment and a reference to the requirements that is fulfilled by submitting this Declaration of commitment].

Signed on behalf of the [Subcontractor's company]:

_____
Location and Date

_____
Name and Title

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Procurement of an EHR solution with adjacent systems and services

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Annex 6

Invitation to Pre-qualification Conference

Case number: 2016/238

Invitation to Pre-qualification Conference, Ranheimsvegen 10, 7044 Trondheim, 21 September 2016, 11:00 – 16:00

Helseplattformen, on behalf of The Central Norway Regional Health Authority (HMN) hereby invites interested suppliers to a Pre-qualification Conference in our premises in Ranheimsvegen 10, on 21 September, from 11:00 – 16:00. We look forward to meeting you!

The purpose of the pre-qualification conference:

The main purpose of the conference is to give a presentation of the Pre-qualification documents, and to provide attending suppliers with the opportunity to direct questions to Helseplattformen.

Detailed agenda and additional information will be provided at a later stage.

Attendance at the Pre-qualification Conference is voluntary and does not affect the suppliers' opportunity to participate in the procurement process. Meeting minutes will be published in Mercell following the meeting.

Registration:

Registration with company and name of participants is to be submitted electronically via the Mercell portal, www.mercell.no, before the 9 September, 12:00 CET. Submit the registration with the subject line: "Pre-qualification Conference – *Name of company*".

Practicalities:

- The meeting will be held at our premises at Ranheimsvegen 10, 7044 Trondheim
- The best way to get to the location from Trondheim Airport is:
  - By train: follow the directions to nearest train stop from the terminal building. Take the train in the direction of Trondheim to Leangen, approximately a 40min travel including a short walk
  - By bus: from right outside the terminal building to Leangen, approximately a 35min travel including a short walk
  - By taxi: from right outside the terminal building, approximately a 25min travel
- If necessary, suppliers are responsible for booking accommodation and travel arrangements themselves

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Procurement of an EHR solution with adjacent systems and services

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Annex 7

Declaration on corruption and compliance with standards of professional conduct

Case number: 2016/238

DECLARATION ON CORRUPTION
AND
COMPLIANCE WITH STANDARDS OF PROFESSIONAL CONDUCT

The Candidate acknowledges the importance of complying with applicable rules and regulations and generally accepted ethical standards, including but not limited to international and national provisions regarding corruption, human rights, working conditions, child labour and discrimination.

It is understood that compliance with these standards will be a requirement when entering into, managing, and executing the contract for the delivery of "Helseplattformen".

The Candidate is furthermore acquainted with Norwegian and European rules on public procurement, which allows for, that if it is demonstrated that an entity taking part in a tender has acted in a manner deemed as corruption, participation in a criminal organisation, fraud, money laundering or any offence concerning the Candidate's professional conduct under respective national laws, this may cause rejection of a tender, or restrictions in the ability to use particular subcontractors.

As part of this Pre-qualification, cf. requirement 14 set out in the Pre-qualification questionnaire, the Candidate represents and warrants that he (or any person he is identified with), at the time of submitting his Pre-qualification Application, has not:

i) been subject of a conviction for corruption, participation in a criminal organisation, fraud, money laundering or any offence concerning the Candidate's professional conduct,

ii) as he reasonably should be aware of, committed any act or omission that under respective national laws may be deemed as breach of legal provisions concerning corruption, participation in a criminal organisation, fraud, money laundering or any offence concerning the Candidate's professional conduct

If the Candidate is in doubt related to its status on i) and/or ii) he shall provide a brief report, that is to be attached to this Annex as Annex 7 Attachment 1, explaining the relevant circumstances of the case(s).

Signed on behalf of the Candidate:

_____

Location and Date

_____

Name and Title

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Procurement of an EHR solution with adjacent systems and services

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Annex 8

Certificate of Independent Bid Determination (template)

Case number: 2016/238

CERTIFICATE OF INDEPENDENT BID DETERMINATION

[Candidate] hereby expressly confirms that [Candidate] has not and will not enter into any form of agreement or cooperation with other companies in violation of national or EU competition law regarding [Candidate]'s proposal or tender in the procurement of an EHR solution with adjacent systems and services for the Customers.

Signed on behalf of the Candidate:

_____

Location and Date

HELSEPLATTFORMEN
for pasientens helsetjeneste

Procurement of an EHR solution with adjacent systems and services

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Annex 4 - Attachment 1

The Enterprise Capability Model Used for Helseplattformen

Case number: 2016/238

Content

1 PURPOSE

This Appendix provides a detailed description for each of the enterprise capabilities and sub-capabilities that are part of the Norwegian Directorate of eHealth's conceptual model[25], which was used as a starting point and adapted in order to define the scope of the procurement for the EHR solution.

The model describes the enterprise capabilities that are necessary to provide health and care services to citizens and comprises of four main areas:

- Management and direction
- Core services
- Clinical support services
- Facilitation

These main areas are broken down further into enterprise capabilities and sub-capabilities. The model has in total 85 sub-capabilities on the lowest level. The following sections of this appendix provides the definition of each of these enterprise capabilities and sub-capabilities.

2 THE NORWEGIAN DIRECTORATE OF EHEALTH'S ENTERPRISE CAPABILITY MODEL

2.1 MANAGEMENT AND DIRECTION

This area includes capabilities that are necessary to exploit the political, technological, knowledge-related, financial and organisational opportunities in order to ensure residents are provided with the best possible health services.

Figure 8: Management and direction enterprise capabilities

[25] https://ehelse.no/Documents/En%20innbygger%20-%20en%20journal/V3.1%20E-helsekapabiliteter_1.0.pdf

Management and direction	
Development	The ability to develop the organisation so that citizens are ensured health services as set out in laws and regulations, and detailed in commissioning documents and propositions. The term health services includes services provided by private and public organisations and services provided in the community that are intended at preventing, diagnosing and treating conditions, providing care to people who are ill or the rehabilitation and habilitation of patients following an illness and injury. This capability can be divided into three sub-capabilities: - Service innovation - Strategy development - Organisational planning
Service innovation	The ability to systematically collect, produce and implement new ideas or opportunities that create value for the health sector or the patient and citizen. This may be a new or improved product, service, production process or an organisational structure.
Strategy development	The ability to define specific goals and describe the direction and priorities in order to achieve these. This also includes the ability to set goals and a plan of action based on external and internal drivers and ensure flexibility in relation to this.
Organisational planning	The ability to plan the organisation's work in line with the priorities, objectives and determined boundaries, as well as to ensure effective utilisation of the organisation's total resources. This includes capacity planning in relation to the patient and citizens' needs, and planning the budget accordingly.
Operational management	The ability to manage mechanisms, processes and relationships that control and provide directions to the organisation. This includes management in relation to legislation, regulations and guidelines, risk management, services, outcome and project portfolio, as well as ensuring change management and benefits realisation. Health values form the foundation for management, planning and prioritisation in health services. The values of justice, equality, equal access to health services, transparency, quality, user participation, respect for the individual and compassion is of importance in all parts of the organisation. This capability is divided into three sub-capabilities: - Performance management and reporting - Balancing health and care services - Service development
Performance management and reporting	The ability to define, collect, analyse and report management data as a basis for ensuring that the organisation’s performance targets are achieved. This includes both the preparation of forecasts and authority reporting. Performance management may focus on the performance of an organisation, division, processes and services, as well as an individual employee.

Balancing health and care services	The ability to balance health and care services according to the society and population's needs and demands for health services. This includes adjusting the distribution of services between different providers.
Service development	The ability to implement strategies through programmes and projects so that the organisation is able to reach its goals. This also includes the ability to manage the driving forces, visions and processes that drive changes to the organisation, as well as ensure that the expected benefits of projects or initiatives for change are realised.
Quality and patient safety	The ability to ensure a more patient-oriented provision of health services, more focus on systematic quality improvement, better patient safety and fewer adverse events. This capability is divided into three sub-capabilities: - Control and compliance - Continuous quality improvement - Handling errors/discrepancies
Control and compliance	The ability to ensure and check that the organisation has procedures and routines that reflect applicable laws and regulations, policies and guidelines. This includes the ability to ensure that its employees know of and follow these procedures. This includes the ability to detect inconsistency in treatment, nursing or care.
Continuous quality improvement	The ability to implement process management, organisational development and service development in the organisation and with collaborators. This includes the ability to undertake recurring evaluations and improvements to patient pathways, processes and procedures, as well as benchmarking against other similar organisations or best practices with the purpose of driving improvements.
Handling errors/discrepancies	The ability to collect adverse events and errors, classify and analyse these and provide feedback in order to adjust processes and routines and other conditions and be able to reduce the likelihood or consequence of the adverse event or errors.
Knowledge management	The ability to collect, share and effectively apply knowledge. This includes a multidisciplinary approach to achieving organisational goals by using the combined knowledge in the organisation in the best possible way. This capability divided into two sub-capabilities: - Development of knowledge - Distribution of knowledge
Development of knowledge	The ability to develop guidelines for clinical best practice. This includes knowledge, decision and process support.
Distribution of knowledge	The ability to distribute the clinical best practice throughout the health sector.
Communication and contact with the community	The ability to manage stakeholders and reputation for current and future benefit. This capability is divided into three sub-capabilities. – Stakeholder management

	- Handling legal aspects - Communication with society
Stakeholder management	The ability to manage the relationship between the organisation and its stakeholders. Stakeholders could for example be both internal (organisational units, staff), patients and their representatives, the community, unions and interest groups. The aim is to take into account and influence the stakeholders' attitudes, decisions and actions for mutual benefit.
Handling legal aspects	The ability to handle all legal aspects. This includes evaluating the current regulations with regards to appropriateness and developing new regulations to exploit the opportunities that exist in technology, finance and the organisation.
Communication with society	The ability to provide information to employees, be in contact with the media and facilitate contact between media and employees. This includes handling incoming inquiries through various channels of media, users, and other stakeholders, and communicating information from the providers to different stakeholders. Reputation management, promotion and communication advice are also important parts of this capability.

Table 11: Description of the Management and Direction capabilities

2.2 CORE SERVICES

These capabilities are specific for the sector's ability to provide health services. This area includes the capabilities that are necessary in order to provide the health services that a citizen has the right and need for.

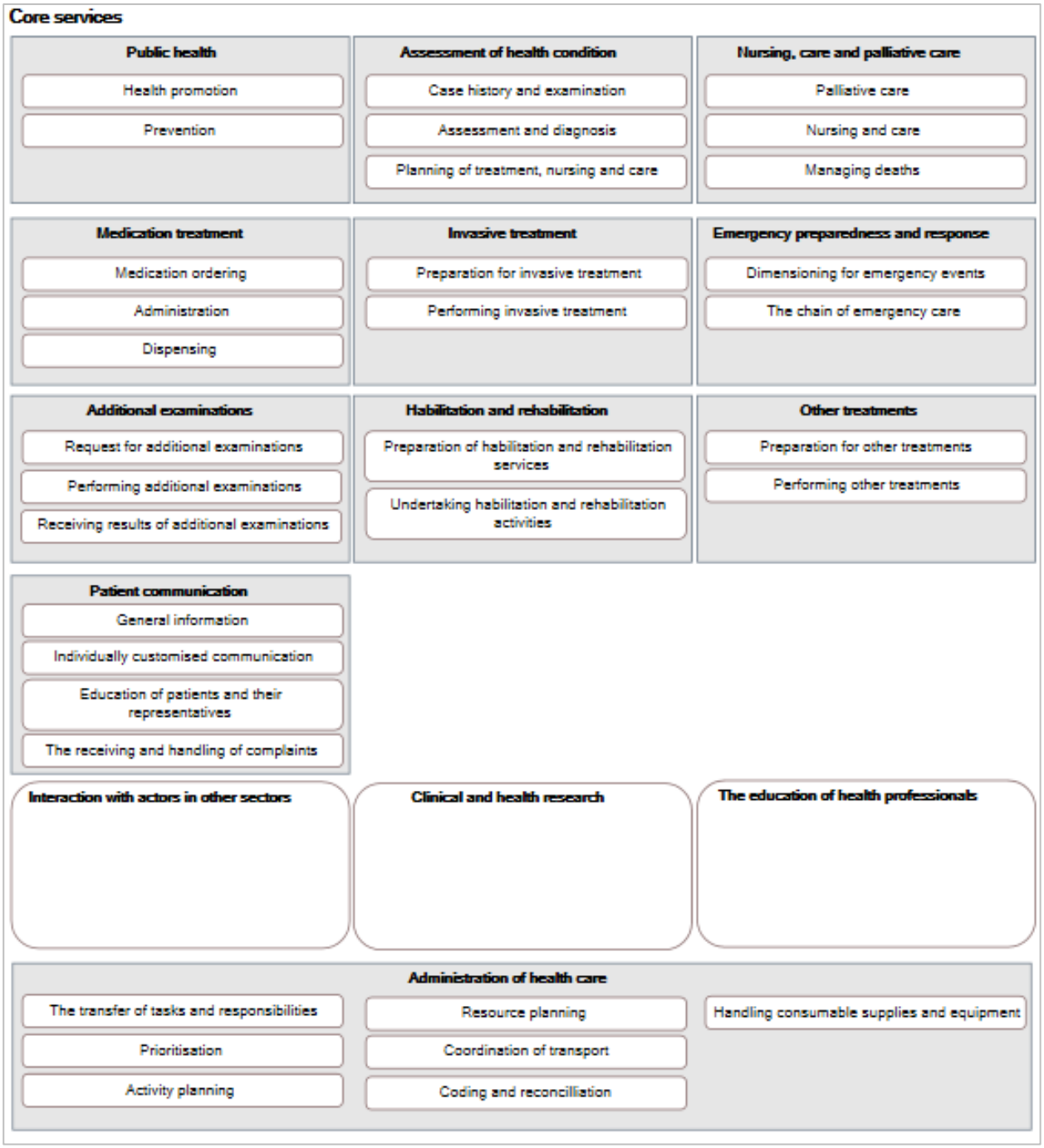

Figure 9: Core services enterprise capabilities

Core Services	
Public health	The ability to develop knowledge, skills, commitments, structures, systems and leadership to enable or support initiatives related to public health. This includes the ability to work both preventative and to manage public health conditions. This capability divided into two sub-capabilities: - Health promotion - Prevention
Health promotion	The ability to promote initiatives that may improve the public's health, such as a healthy lifestyle, by increasing public knowledge and skills, support health promotion in organisations, and improve collaboration in relation to health in local communities.
Prevention	The ability to change the factors that are considered a threat to a person's health, for instance through early detection, monitoring and identification of risk groups for various conditions, providing advice and other necessary interventions to prevent a health problem are also approaches to this work. Screening examinations, information on health and vaccination programmes are all common examples of prevention, as are campaigns against tobacco. Prevention is often divided into the initiatives that prevent the occurrence of diseases (primary prevention), initiatives limiting diseases that have already arisen (secondary prevention) and rehabilitation (tertiary prevention).
Assessment of health condition	The ability to obtain all necessary information about the patient's health condition and overall situation, assess this, determine the diagnosis, plan and coordinate treatment and care, as well as considering the impact and outcome of initiated measures. This capability is divided into three sub-capabilities: - Case history and examination - Assessment and diagnosis - Planning of treatment, nursing and care
Case history and examination	The ability to systematically collect information about a patient relevant for treatment and care. Relevant information could be the patient's own perception of current health problems, medical history, medication usage, lifestyle, living situation, the patient's own measurements and observations, special needs, wishes, resources and knowledge. It also includes the ability to schedule and potentially carry out various types of diagnostic examinations, observations, measurements (e.g. blood pressure, temperature, blood sugar and ECG), tests, as well as obtaining evaluations from other health professionals.
Assessment and diagnosis	The ability to assess and compile all information gathered about the patient's health condition and overall situation, determine any additional diagnostic initiatives, and establish preliminary or "final" diagnosis or description of the patient's symptoms as the basis in order to plan a course of treatment in conjunction

	with the patient. This capability also includes the ability to evaluate the impact and outcome of the measures undertaken in terms of treatment and care.
Planning of treatment, nursing and care	The ability to develop coordinated plans for treatment, nursing and care in conjunction with the patient and possibly the patient's representative. This includes the ability to prioritise between the patient's various conditions or injuries, consider different treatment options, provide the patient with guidance when choosing between these options, and provide information to, and create a good dialogue with, the patient and their representatives. This capability is important in all stages of treatment planning and includes the ability to develop plans for each course of treatment, and plan the monitoring and self care following treatment.
Nursing, care and palliative care	The ability to care for and support patients and their representatives so they can achieve, maintain or restore optimal health and quality of life. This means supporting patients and representatives who lack ability, strength, knowledge or willingness to fulfil their own basic needs. Symptom relief and good terminal care for all patients should also be ensured. This capability is divided into three sub-capabilities: - Palliative care - Nursing and care - Managing deaths
Palliative care	The ability to provide active treatment and care to patients with an incurable disease and short life expectancy. Limiting the patient's physical pain and other distressing symptoms are central, in addition to measures aimed at psychological, social and spiritual / existential problems. The goal of palliative care is to provide the best possible quality of life for patients and their representatives. Palliative care neither expedites death nor prolongs the death process, but looks at death as part of life. These principles are applicable to all patients with a life-threatening illness and may be used early in the pathway.
Nursing and care	The ability to ensure that patient needs are taken care of, or to take care of these if the patient is not able to do so themselves. It involves performing active treatment and care based on the patient's health condition, and to initiate appropriate treatment options. This involves the ability to prioritise problems, goal settings, choice of measures and drafting of plans, as well as the ability to prepare all the equipment and necessary resources for nursing and care activities. The physical, mental, social, spiritual and cultural needs must be attended to and the goal for nursing and care is to achieve the best possible quality of life for patients and their representatives. *Specified by Helseplattformen: In this context, integrated care pathways that are diagnosis independent, knowledge-based generic pathways are very important.*
Managing deaths	The ability to handle the deceased, as well as the person's

	relatives. The ability to write a death certificate and report death to the national registers, such as the Cause of Death Registry and the National Registry.
Medication treatment	The ability to solve or minimise a health problem with medication treatment. Medication treatment in the patient's home and in institutions are included. The ability assumes that the medication management is a process that runs from a prescriber orders medication, via production and supply, dispensing and administration of the medication, until the evaluation of outcome. This capability is divided into three sub-capabilities: - Medication ordering - Dispensing - Administration
Medication ordering	Medication ordering is the step of the medication management process where a prescriber decides which medication should be given to the patient. The medication prescription is the formal decision of the medication order to be dispatched. The prescriber has the ultimate responsibility for which medications are ordered for the patient. This capability also includes the ability to alter, pause and terminate (withdraw) the medication order.
Administration	Medication administration is the step of the medication management process which involves the patient receiving medication through various routes of administration. The administration of medication may be documented in detail per medication dose or more high-level. Health professionals, for instance in institutions or home care services, may carry out the administration of medication but, most commonly, the patient self-administers medications at home.
Dispensing	Dispensing is the step of the medication management process where medications are prepared for the individual patient, or where standard packages are prepared for e.g. an operation. This may be mixing a bag of medications for infusion, preparation of syringes etc.
Invasive treatment	The ability to cure or limit a health problem by surgery, in other ways perforating skin, or using special procedures such as catheterisation, endoscopy, laparoscopy. Treatment in the patient's home is also included. This capability divided into two sub-capabilities: - Preparation for invasive treatment - Performing invasive treatment
Preparation for invasive treatment	The ability to ensure that all necessary equipment and resources are ready to use for invasive treatment. This includes the ability to ensure necessary materials are prepared and put in place in advance of the clinical procedure.
Performing invasive treatment	The ability to undertake invasive activities in the treatment plan agreed upon by the health professional and patient.

Emergency preparedness and response	The ability to create emergency preparedness plans and respond to emergencies. This capability is divided into two sub capabilities: - Dimensioning for emergency events - The chain of emergency care
Dimensioning for emergency events	The ability to prepare the necessary emergency preparedness plans, as well as to dimension teams in the event of emergency and organisational continuity incidents. This includes both the national emergency preparedness plans and the organisation's own preparedness plans. In addition, this includes the continuous planning of response to incidents where emergency assistance (out-of-hours emergency primary health care (OOH), emergency departments) is required.
The chain of emergency care	The ability of providers of urgent and emergency care services to receive, investigate, treat or provide care to citizens who need this.
Additional examinations	The ability to request (refer, order, apply) for additional examinations by health professionals who are not part of the team that is responsible for the patient. This capability is divided into three sub-capabilities: - Request for additional examinations - Performing additional examinations - Receiving results of additional examinations
Request for additional examinations	The ability to refer, request or apply for additional examinations that are considered necessary in order to complete a final evaluation and diagnosis.
Performing additional examinations	The ability to perform additional examinations. In many cases this involves a specialist who conducts their own examinations, but it may also involve capabilities within clinical support services.
Receiving results of additional examinations	The ability to receive results and ensure that all results are seen and potentially handled.
Habilitation and rehabilitation	The ability to provide planned services with clear targets and measures, where several providers of health services work together to ensure the patient receives necessary support to achieve the best possible abilities to function, independence and participation socially and in the community. The extent of patient participation should be optimal and adjusted based on individual requirements. Services from different disciplines and sectors must be seen in correlation to each other and help achieve the patient's goals. The key activities within habilitation/rehabilitation will overlap with activities in the other treatment capabilities, and the nursing, care and palliative care capability. The difference is the distinctive focus on the patient's personal activities and self care, as well as multidisciplinary care and support from other municipal services. In addition, habilitation and rehabilitation is a collective term for various services put together. A single service, even though it may aim to support a user to regain

	function, is therefore not to be considered rehabilitation. This capability is divided into two sub-capabilities: - Preparation of habilitation and rehabilitation services - Undertaking habilitation and rehabilitation activities
Preparation of habilitation and rehabilitation services	The ability to ensure that the patient, and all required resources and equipments, are prepared and ready to undertake habilitation and rehabilitation services.
Undertaking habilitation and rehabilitation activities	The ability to participate in rehabilitation activities or habilitation activities according to a plan.
Other treatments	The ability to cure or minimise health problems through non-medication, non-invasive treatment. Treatment at home is also included. Examples of other treatments are radiation therapy, milieu therapy, lifestyle changes, diet, physical therapy, psycho-therapy, cognitive therapy and occupational therapy. This capability is divided into two sub-capabilities: - Preparation for other treatments - Performing other treatments
Preparation for other treatments	The ability to ensure that all necessary equipment and all necessary resources are prepared and ready to use for treatment. This includes the ability to ensure that necessary resources and / or equipment are put in place in advance of the start of treatment.
Performing other treatments	The ability to perform other activities in the treatment plan agreed between the health professional and patient.
Patient communication	The ability to provide patients and their representatives with the information and knowledge necessary for them to contribute and take ownership of their own health, as well as to ensure a predictable and accessible relation with the providers of health services. This capability is divided into four sub-capabilities: - General information - Individually customised communication - Education of patients and their representatives - The receiving and handling of complaints
General information	The ability to provide citizens with access to quality assured and updated information about different diagnoses, their rights and how to deal with health services. This also includes the citizen's ability to manage their use of health services; scheduling appointments, choosing their place of treatment etc.
Individually customised communication	The ability to provide citizens with access to personalised information and services that are customised to the citizen's own situation. This also includes support to make their own decisions, as well as recording self-produced information.
Education of patients and their representatives	The ability to provide patients and their families with knowledge and skills to cope with long term conditions and health changes. Patients contribute with their experiences and understanding of their own situation and methods that stimulate increased independence and focus is placed on the

	patient's/citizen's resources.
The receiving and handling of complaints	The ability to provide citizens with the opportunity to submit a complaint about health services based on the rights set out in laws and regulations.
Interaction with actors in other sectors	The ability to interact with actors in other sectors with regards to services rendered to an individual citizen. This includes for instance the National Registry, the Cancer Registry of Norway, child protection services, schools, nurseries, educational and psychological services, the Norwegian Labor and Welfare Administration (including aids, sick leave, work ability assessment), employers, police, the Norwegian Directorate of Immigration and insurance companies.
Clinical and health research	The ability to generate new knowledge about health and diseases through scientific methodologies in order to improve patient diagnoses, treatment and care. This capability includes the ability to conduct research, including the recruitment of patients, blinding etc. The ability results in publications and PhDs. This ability is important for quality improvement in health services, including the establishment of national medical quality registers, protection of biological materials (biobanks), the development of national and subject-specific quality indicators, as well as implementation of evidence-based practice.
The education of health professionals	The ability to ensure that the need for health professional education and training for students, apprentices, interns and specialists is attended to. In addition, a health professional needs to receive the training and education required for the individual to carry out their work properly.
Administration of health care	The ability to handle the administrative parts and activities of providing health services to the population. This includes handling all forms of contact, prioritisation and planning activities and resources related to determining a diagnosis, providing treatment and care in addition to managing health information, as well as establishing the basis for financial settlements and activity reporting. This capability is divided into seven sub-capabilities: - The transfer of tasks and responsibilities - Prioritisation - Activity planning - Resource planning - Coordination of transport - Coding and reconciliation - Handling consumable supplies and equipment
The transfer of tasks and responsibilities	The ability of health professionals to efficiently transfer tasks and responsibilities between each other. This currently takes place through discharge summaries, summaries, referrals, requisitions, applications and subsequent proceedings and any decisions, as well as other normal messages on various types of media.

Prioritisation	The ability to prioritise based on urgency, rights and capacity. This also includes prioritising between patients and prioritising between different patient groups (types of conditions). This capability is an essential part of the process for evaluating applications, referrals and managing waiting list initiatives.
Activity planning	The ability to plan an individual patient's care, including • Appointments: date, time, place and health professionals to be involved in patient contact and consultation • Examinations: date, time, place and necessary resources (staff, equipment, capacity) to carry out a specific examination • Admission, transfer and discharge • Home care services • Treatment: date, time, place and necessary resources (staff, equipment, rooms, other equipment) necessary to carry out surgical or therapeutic treatment • Coordination and communication with patients and their representatives
Resource planning	The ability to allocate staff, space and equipment based on planned levels of activity and capacity.
Coordination of transport	The ability to offer citizens, who are entitled, transportation to and from their home and between treatment sites, either by providing them with reimbursement of expenses or by assisting them with suitable transport. This capability involves ordering transport of the right kind to the right place. The transport services can be both internal and external, and it may involve a fair bit of coordination across different transport providers.
Coding and reconciliation	The ability to ensure correct coding and relevant information about diagnoses and activities undertaken, as well as the patient's out-of-pocket charge linked to medical procedures, treatment and care based on the patient's illness or injury. The information is used for reporting and billing, and the capability also covers the ability to identify, analyse and deal with discrepancies between planned and actual outcomes.
Handling consumable supplies and equipment	The ability to order and supply consumable supplies and equipment, i.e. equipment that can only be used once, such as syringes, swabs, etc. Equipment that is made specifically for an individual patient is also regarded as a consumable supply, e.g. prosthesis. These can only be used once, by a single patient, but may still be in use by the patient for a long period.

Table 12: Description of the Core Services capabilities

2.3 CLINICAL SUPPORT SERVICES

These are the capabilities that directly enable, and are therefore closely linked to, the core services. This area defines the capabilities that are directly enabling for, and thus closely linked to the core services.

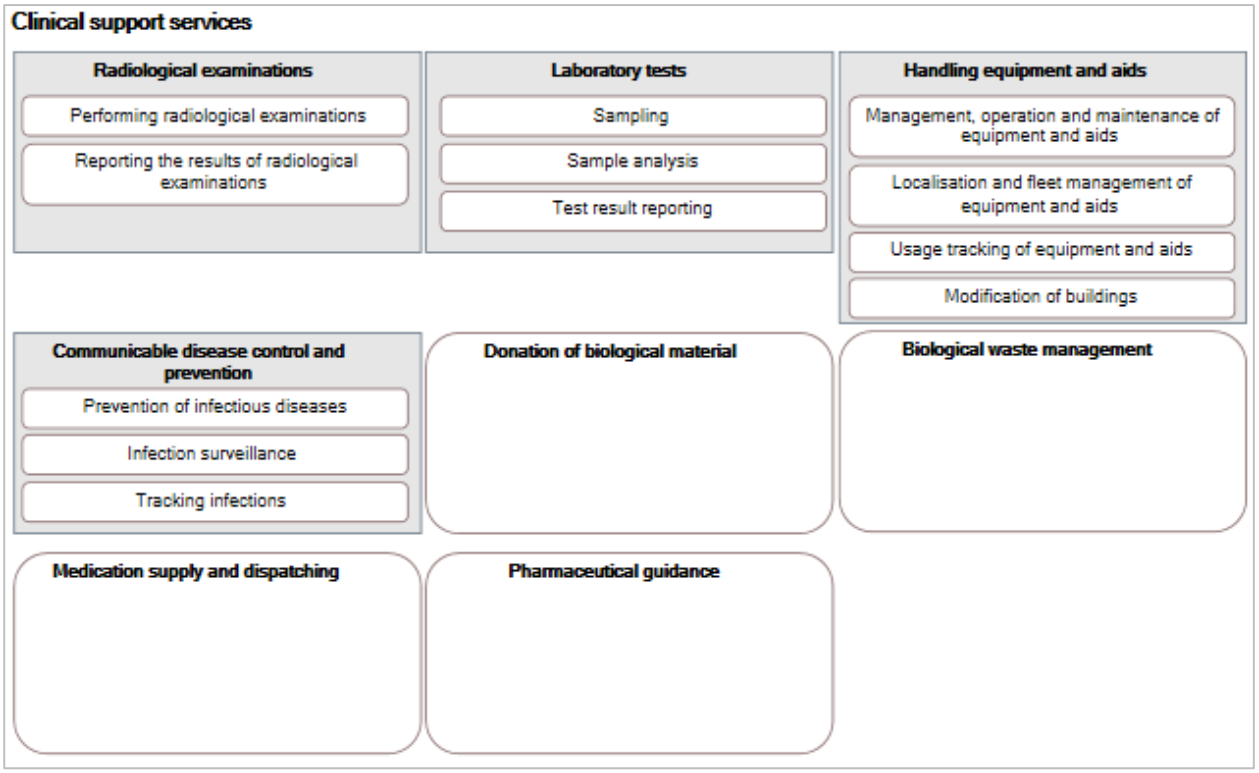

Figure 10: Clinical support services enterprise capabilities to be supported by the new solution

Clinical support services	
Radiological examinations	The ability to obtain, process and report clinical information through the use of imaging technology in order to obtain information about the health of a patient in connection with the determination of a diagnosis, treatment or prevention of a condition or injury. This includes the use of e.g. X-rays, ultrasound or magnetic resonance (MR) diagnostics and treatment. This capability divided into two sub-capabilities: - Performing radiological examinations - Reporting the results of radiological examinations
Performing radiological examinations	The ability to record and save images of the human body, or parts of the human body, for clinical purposes, as well as processing and evaluting images in conjunction with other clinical information.
Reporting the results of radiological examinations	The ability to present and offer advice in relation to the outcome of the analysis of an image, with reference to the source and other clinical information, for health professionals and / or patients or relatives.
Laboratory tests	The ability to take samples and perform analysis on the samples in order to obtain information about the health of a patient with regards to establishing the diagnosis, treatment or prevention of disease or injury. This includes e.g. biochemical, pathological and microbiological tests. This capability is divided into three sub-capabilities: - Sampling - Sample analysis - Test result reporting
Sampling	The ability to perform the collection of samples/tests in accordance with a defined process.
Sample analysis	The ability to undertake and evaluate analysis of tests in order to obtain information about a patient´s health using standardised methods.
Test result reporting	The ability to present results of analysis and provide advice to health personnel and/ or the patient or patient´s representatives so that these can be used appropriately to determine a patient´s diagnosis, monitor or provide treatment.
Handling equipment and aids	The ability to plan the procurement, identification, maintenance, testing and disposal of medical devices, medical and non-medical equipments and aids.This capability is divided into four sub-capabilities: - Management, operation and maintenance of equipment and aids - Localisation and fleet management of equipment and aids - Usage tracking of equipment and aids - Modification of buildings
Management, operation and	The ability to plan the procurement, controls, monitoring,

maintenance of equipment and aids	testing, maintance and disposal of medical devices, medical and non-medical equipments and aids.
Localisation and fleet management of equipment and aids	The ability to physically localise where medical devices, medical and non-medical equipments and aids are currently located.
Usage tracking of equipment and aids	The ability to track the use of medical devices, medical and non-medical equipments and aids, as well as retrieving information.
Modification of buildings	The ability to prepare a patient's home in order to offer the patient the best possible quality of life and safety.
Communicable disease control and prevention	The ability to prevent and limit the incidence of infectious diseases in health services. This capability is divided into three sub-capabilities: - Prevention of infectious diseases - Infection surveillance - Tracking infections
Prevention of infectious diseases	Sterilisation of equipment: The ability to ensure that equipment and rooms do not contain microorganisms, including bacterial spores. Handling isolation (preventing spread): The ability to prevent the spread of infectious diseases between a patient and other patients, health personnel or visitors. Hygiene: The ability to establish and maintain practices that contribute to maintaining health and to preventing infections.
Infection surveillance	The ability to report infectious diseases (as defined in the Infectious Disease Control Act) to the Norwegian Institute for Public Health for statistical purposes.
Tracking infections	The ability to identify patients that may have been exposed to a infectious disease in order to control or treat, as well as identify the causes of outbreaks of infectious diseases, where applicable.
Donation of biological material	The ability to handle the donation of biological material from a living or dead person to a living recipient. This includes documenting and tracking who has given what to whom, for instance by transferring blood or donating human milk, semen or organs.
Biological waste management	The ability to store, treat and destroy organs, parts of organs, fluids, cells and tissues, or parts of such material, from living and dead people in an appropriate way.
Medication supply and dispatching	Medication supply and dispatching is the step of the medication management process where an order of medication is received and processed at the pharmacy or at the wholesale, and where medication is packaged, labelled and transported to the appropriate patient, hospital ward, nursing home, home care service or others. The most common scenario is that the patient him/herself purchases the medications at the pharmacy. The capability includes control of the local stock, in order to have sufficient storage and handling the stockpile with regards to possible mass injuries or pandemics.

	It is mainly the pharmaceutical industry that produces medications, although some medications are produced locally in pharmacies. This capability includes both.
Pharmaceutical guidance	The ability to provide advice and guidance to patients and health professionals concerning the use of medications in order to help improve patient safety by ensuring high quality in all aspects of medication management and treatments involving medications.

Table 13: Description of the Clinical Support Services capabilities

2.4 FACILITATION

These capabilities shall support the core services and ensure a stable and well-functioning operation of services. As you will see in the more detailed descriptions there are certain capabilities, such as welfare support, that are placed within this area. With regards to municipal services it is rightly argued that these capabilities are part of the primary tasks. This main area comprises the physical capabilities that have to be in place in order to operate a medical centre, a hospital, an outpatient clinic, a GP practice, a health institution, or to provide care in a patient's home or in a care home. In addition this area includes capabilities that deal with finance and human resource management.

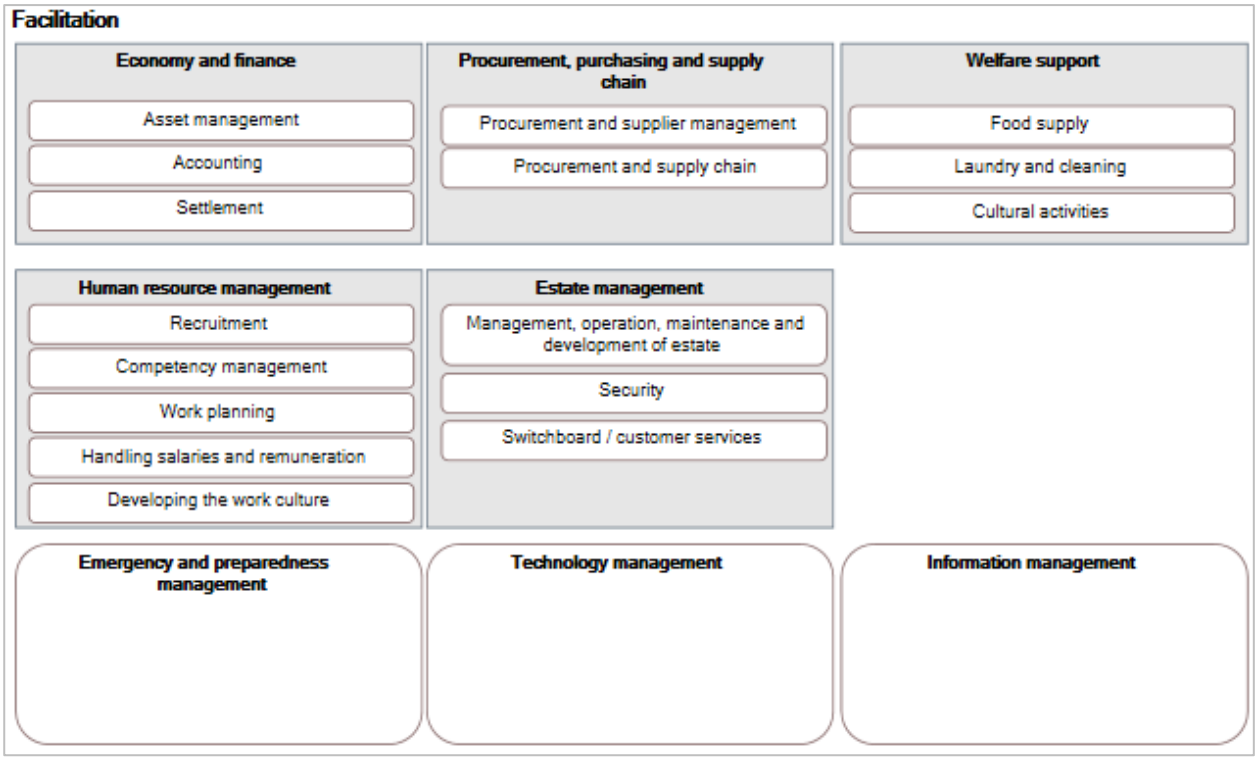

Figure 11: Facilitation enterprise capabilities

Facilitation	
Economy and finance	The ability to manage financial decisions through asset management, account management and financial reporting. This capability is divided into three sub-capabilities: - Asset management - Accounting - Settlements
Asset management	The ability to actively manage the organisation's financial assets, including managing loans.
Accounting	The ability to record and post transactions, conduct internal audits and advise on tax matters. This includes managing accounts payable and accounts receivable.
Settlement	The ability to send refund claims with associated documentation and receive payment decisions. Claims for reimbursements can be created, altered and deleted.
Procurement, purchasing and supply chain	The ability to acquire and provide goods and services, as well as managing supplier contracts in line with the business' needs. This capability is divided into two sub-capabilities: - Procurement and supplier management - Procurement and supply chain
Procurement and supplier management	The ability to ensure all supplier contracts support the business' needs, and that all suppliers meet their contractual obligations. This also includes the administration of all contracts (renewals, modifications and terminations).
Procurement and supply chain	The ability to purchase goods and services required by the organisation, including all planning, purchasing, receiving the goods, inventory management and delivery.
Welfare support	The ability to offer patients and their representatives with cultural and welfare services in hospitals, nursing homes or in the patient's home to ensure the best possible quality of life. As well as providing advice and support to patients and their representatives concerning their rights in relation to their health-related circumstances. This capability is divided into three sub-capabilities: - Food supply - Laundry and cleaning - Cultural activities
Food supply	The ability to produce and serve food to patients, representatives and employees. This also includes ensuring food is appropriately adapted.
Laundry and cleaning	The ability to do laundry and clean buildings (nursing homes and hospitals) and the homes of the patients who need it. This includes washing linen, patient clothing, staff uniforms, duvets, pillows and curtains.
Cultural activities	The ability to offer cultural activities to patients and their representatives.

Human resource management	The ability to recruit, ensure competence, follow up, evaluate and reward employees, develop an organisational culture, as well provide an overview of the organisational management and ensure compliance with laws and regulations for employers and employees. This capability is divided into five sub-capabilities: - Recruitment - Competency management - Work planning - Handling salaries and remuneration - Developing the work culture
Recruitment	The ability to attract, select and hire qualified staff.
Competency management	The ability to ensure that the organisation's employees, both individually and collectively, have the appropriate and sufficient skills and knowledge to meet the organisation's needs in relation to the tasks that must be carried out to reach the organisation's goal.
Work planning	The ability to plan work activity, staffing requirements and shift schedules in order to provide the best possible services to the patients, as well as take into account the employee's needs in the best possible way.
Handling salaries and remuneration	The ability to compensate employees for the services they perform for the employer.
Developing the work culture	The ability to influence employees' actions and decisions through establishing values, norms and perceptions of reality that characterise the organisation.
Estate management	The ability to develop, maintain and accommodate the physical elements of the work space to ensure these support and improve the efficiency of the organisation's primary activities. The parts of the physical services that are patient-oriented are contained in capability called welfare support. This capability is divided into three sub-capabilities: - Management, operation, maintenance and development of estate - Security - Switchboard / customer services
Management, operation, maintenance and development of estate	The ability to maintain necessary activities in the building's life span: management, operations, maintenance, development, service and potential. Included in this is tenant management, including having an overview of all available spaces and control the use and disposal of these, and other administrative responsibilities, ensuring that the building of technical installations work as planned, maintaining the quality of buildings/estate and technical installations within the given life span, handling reconstructions and upgrades to ensure buildings/estates meet the users' needs and achieve its potential, including: - Waste management. The ability to ensure waste is handled according to regulations related to waste for recycling, incineration, or other safe disposals.

	- Energy -Water, ventilation and sewage disposal. The ability to provide users of the estate with satisfactory water, ventilation and sanitary facilities and services
Security	The ability to ensure that no unauthorised person has access to the buildings, installations or property, as well as protecting against fire and any other factors that may cause damage to or destruction to buildings, installations or property.
Switchboard / customer services	The ability to handle inquiries related to facility management, or pass the request on to the correct individual or entity.
Emergency and preparedness management	The ability to ensure that the organisation's critical functions will either continue to function in spite of serious incidents or accidents that otherwise would have disturbed them, or will be restored to proper operating condition within a reasonable time.
Technology management	The ability to plan, develop, operate and manage the infrastructure and solutions for ICT, telecommunications, signal and video so that these contribute to the quality and efficiency of core services and related work. This also includes the handling of technical security.
Information management	The ability to define decision-making powers and a framework to ensure appropriate behavior in the valuation, creation, storage, use, archiving and deletion of information. It includes the processes, roles and guidelines, standards and measurements that ensure the effective use of information in the organisation to realise the organisation's goals. This includes the preparation of data for analysis and reporting. It also includes securing information (information security - availability, confidentiality and integrity).

Table 14: Description of the Facilitation capabilities