

# Designating Excellence in European Comprehensive Cancer- & Cancer Research Centers

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Input:

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# Designating Excellence....

- Mission/Policy
- Definitions of cancer centre categories
- Existing designation/labelisation systems
- OECCI accreditation/labelisation
- Designating excellence/European platform
- Review system features

# Mission/Policy

OEI:

- To stimulate comprehensiveness in oncology (Accreditation)
- To establish an European platform for improvement and research (Guidelines,..... and Designation)

# Draft Definitions

## Comprehensive Cancer Center

- A combination of a cancer hospital facility covering and integrating
  - the full range of cancer prevention/screening, medical-, surgical- and radiotherapeutical oncology
  - and (fundamental), translational, (and clinical) cancer research activities
  - as well as substantial activities in the field of innovation and education
  - organized in a sufficiently identifiable entity.

# Draft definitions (1)

## *Cancer Institutes*

- **Cancer Clinic / -Unit**

*“A clinical facility or hospital department that covers radiotherapy and surgery or medical oncology and has a formalized collaboration with other hospital services”.*

- **Cancer Centre**

*“A clinical facility or hospital covering a sufficient degree of the combination of medical, surgical and radiotherapy services and clinical research to a limited extend, together organized in a sufficiently identifiable entity”.*

# Draft Defintions

## Comprehensive Cancer Center (CCC) of Excellence

- A Comprehensive Cancer Center that has **proven to perform on levels of excellence** on a full and/or outstanding range
  - of medical, surgical and radiotherapeutical oncology
  - and of (fundamental) translational (and clinical) cancer research
  - and of innovation and education

# Draft Definitions

## **Cancer Research Centre**

- A research organization focusing on one or more areas in the field of fundamental and translational oncology – related research

## **Cancer Research Centre (CRC) of Excellence**

- A Cancer Research Centre that has proven to perform on levels of excellence in most of its research fields

## Existing Designation/Labelisation systems

- NCI designation:
  - High levels of infrastructure, expertise and innovation
  - Covering basic, translational and clinical research
  - Integration of research into provision of treatment
  - Identifiable entity



## NCI CCC-Designation

- Separate procedure NCI/JCAH
- Partly subjective (SMART in earlier phase)
- Written report & Audit based
- Performance scores ??
- No cancer research sites

## **NOCI criteria Clinical (Translational) Research.**

Top clinical institute (accruing power)

- Logistics for trial design and Trial conduct
- Logistics for tissue collection and – banking

**Professional Accreditation systems:  
ESMO, ESTRO, Eusoma**

## **OEI Accreditation project**

- Establishing (the degree of) comprehensiveness of institutions
- Based on Canadian/French/Dutch accreditation systems
- First draft self evaluation 2006/7
- First site visit/peer review pilots (2008)

## **OECCI Accreditation project**

- Formal launch accreditation system  
Sept./Oct. 2008
- Designation –see definitions- to be  
based on accreditation
- Pilots in 2008/9

## Designating Excellence: CCC's

- Ultimately: Sufficient OEI accreditation as CCC
- (Or compliance with a selection of OEI criteria for comprehensiveness)
- Excellence = performance criteria and peer review of open excellence criteria

## Designating Excellence: CRC's

- CR-UK system/criteria as basis..?
- Analogous criteria and peer review for excellent performance as with CCC's.

Excellence in identifiable areas of Cancer  
Centers/-Units!?

## **Review system Features for CCC's**

- OEI develops and maintains the system
- Parallel development Accred. Steering group
- Formalised review system including review board decisions
- OEI invites stakeholders in designation review board

# Closed criteria CCC

CLOSED/INPUT CRITERIA CCC	
<i>Research areas</i>	<i>+ / - most important areas</i>
<ul style="list-style-type: none"> <li>- <i>Cell biology,</i></li> <li>- <i>Molecular biology,</i></li> <li>- <i>Biochemistry</i></li> <li>- <i>Immunology</i></li> <li>- <i>Imaging</i></li> <li>- <i>Genetics</i></li> <li>- <i>Epigenetics</i></li> <li>- <i>Tumour environment and metastasis</i></li> <li>- <i>Structure biology</i></li> <li>- <i>Stem cell biology</i></li> <li>- <i>Pharmacology &amp; metabolism</i></li> <li>- <i>Epidemiology</i></li> <li>- <i>...</i></li> <li>- <b><i>Other suggestions...</i></b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Infrastructures for research:</b> <ul style="list-style-type: none"> <li>- <i>Molecular pathology</i></li> <li>- <i>Biostatistics</i></li> <li>- <i>Screening for new anticancer agents</i></li> <li>- <i>Animal facilities/ animal models</i></li> <li>- <i>Biomics (DNA, RNA, proteins)</i></li> <li>- <i>Bioinformatics</i></li> <li>- <i>Clinical trials units, early clinical trials including biological questions</i></li> <li>- <i>Biobanks for tumour, normal tissues &amp; biofluids</i></li> <li>- <i>Validation of tumour markers</i></li> <li>- <i>Antibody production</i></li> <li>- <i>Patient data registries</i></li> <li>- <i>Quality of life assessment</i></li> <li>- <i>.....</i></li> <li>- <b><i>Other suggestions...</i></b></li> </ul> </li> </ul>	



<b><i>Substantial infrastructure focused on cancer care</i></b>
<ul style="list-style-type: none"> <li>•Oncology specialties:           <ul style="list-style-type: none"> <li>-Surgical</li> <li>-Medical</li> <li>-Radiotherapeutical</li> <li>-Pediatric oncology</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Multidisciplinary coordination &amp; collaboration by multidisciplinary oncology teams</li> </ul>
<ul style="list-style-type: none"> <li>• Sufficient amount of clinical facilities focused on cancer care:           <ul style="list-style-type: none"> <li>- Preventive service</li> <li>- Screening high risk patients/genetic advice</li> <li>- Operating rooms (specific to oncology)</li> <li>- I.C. beds</li> <li>- Radiotherapy units (including accelerators &amp; cobalt unit</li> <li>- Radiology unit (including CT-scanners, mammography &amp; facilities for MRI)</li> <li>- Nuclear medicine unit (including Pet-scan, CT-Pet &amp; Radio nucleotide facilities)</li> <li>- Pathology (cytology &amp; histopathology)</li> <li>- Hematology unit</li> <li>- Pharmacy-chemotherapy unit</li> <li>- Paramedical unit</li> <li>- Psycho-social unit</li> <li>- Palliative care team</li> <li>- Supportive care</li> </ul> </li> </ul>
<b><i>Substantial human resource capacity</i></b>
<ul style="list-style-type: none"> <li>• Total number of employees dedicated to cancer care</li> <li>• Total number of employees fully dedicated to cancer research (senior staff, postdocs &amp; technicians)</li> </ul>
<b><i>Substantial financial capacity</i></b>
<ul style="list-style-type: none"> <li>• Annual income/ expenditure for cancer care</li> <li>• Annual income/ expenditure for cancer research</li> </ul>
<b><i>Substantial amount of activities focused on education</i></b>
<ul style="list-style-type: none"> <li>• Basic education programs (to be defined)</li> <li>• Specialist education programs (idem)</li> <li>• Research education programs (idem)</li> <li>• Scientific meetings/ Seminar program (idem)</li> <li>• <b>Other suggestions...</b></li> </ul>

# Output criteria

OUTPUT CRITERIA	PARAMETERS
<b>Quantitative performance</b>	
<ul style="list-style-type: none"> <li>Clinical production (medical, surgical &amp; radiotherapeutical)</li> </ul>	<ul style="list-style-type: none"> <li>- Overall number of new cancer registered patients/year</li> <li>- pm Further specification of patient numbers and treatments needed?</li> </ul>
<ul style="list-style-type: none"> <li>Scientific production</li> </ul>	<ul style="list-style-type: none"> <li>- Number of active clinical trials (phase I, II, III &amp; IV) (proportion)</li> <li>- Number of peer reviewed scientific publications/ year</li> <li>- Number of publications in high impact journals, 10 or more</li> <li>- List with overview of ongoing research projects</li> </ul>
<b>Qualitative performance</b>	
<ul style="list-style-type: none"> <li>Scientific performance</li> </ul>	<ul style="list-style-type: none"> <li>- Impact factor (cumulative &amp; high score) of peer reviewed articles</li> <li>- Citation index</li> <li>- .....</li> <li>- Membership of a number of formal international research cooperation networks/framework program EU</li> </ul>
<ul style="list-style-type: none"> <li>Clinical performance</li> </ul> <p><b>Should be a criteria, but is difficult to indicate at the moment, and therefore to be developed...</b></p>	<ul style="list-style-type: none"> <li>- Percentage of patients included in trials (phase I, II, III &amp; IV)</li> <li>- Process or outcome related criteria ???</li> </ul>
<ul style="list-style-type: none"> <li>Educational performance</li> </ul>	<ul style="list-style-type: none"> <li>- Invited lectures (scientific &amp; other) of senior staff/year</li> <li>- Number of educational courses</li> <li>- Number of PhD students</li> <li>- Number (list) of PhD theses/year</li> <li>- Number of University? Professors</li> </ul>

# Open review criteria CCC

- **Interdisciplinary and transdisciplinary collaboration & coordination:**
  - Level of effective transdisciplinary and translational collaborations among laboratory, clinical and population cancer center members
  - Extend to which activities between and among research and treatment programs have added value to cancer related scientific activities
  - Actively taking part in international research cooperation
- **Institutional commitment:**
  - Formal codification of organizational status of a CCC in institutional policy and structure (authorities of the director over centres resources, control of space and permanent access of facilities, assurance of occupation positions, budget and funds, reporting structures, distribution of responsibilities)
  - Clear defined scientific focus on cancer care in the organizations' vision and mission
- **Qualified board members:**
  - High scientific and administrative qualifications
  - Experience related to centers' objectives and activities
  - Formal and informal authority
- **Institutional entity**
  - Dedicated budget and sufficient autonomy
  - Research and hospital staff under one administrative / institutional entity

CLOSED/INPUT CRITERIA	NORM Comprehensive Cancer Center	NORM Cancer Center	NORM Cancer Unit
<b>Substantial infrastructure focused on cancer research</b>	Minimum scores or present (v)		
<ul style="list-style-type: none"> <li>•Infrastructures for basic research:               <ul style="list-style-type: none"> <li>- <i>Cell biology,</i></li> <li>- <i>Molecular biology,</i></li> <li>- <i>Biochemistry</i></li> <li>- <i>Immunology</i></li> <li>- <i>Imaging</i></li> <li>- <i>Genetics</i></li> <li>- <i>Epigenetics</i></li> <li>- <i>Tumour environment and metastasis</i></li> <li>- <i>Structure biology</i></li> <li>- <i>Stem cell biologygy</i></li> <li>- <i>Pharmacoly &amp; matabolism</i></li> <li>- <i>Epidemiology</i></li> <li>- ...</li> <li>- <b>Other suggestions...</b></li> </ul> </li> </ul>	- Minimum of 5	- Minimum of ...	- not applicable
<ul style="list-style-type: none"> <li>•Infrastructures for other (translational) research:               <ul style="list-style-type: none"> <li>- <i>Molecular pathology</i></li> <li>- <i>Biostatistics</i></li> <li>- <i>Screening for new anticancer agents</i></li> <li>- <i>Animal facilities/ animal models</i></li> <li>- <i>Biomics (DNA, RNA, proteins)</i></li> <li>- <i>Bioinformatics</i></li> <li>- <i>Clinical trials units, early clinical trials including biological questions</i></li> <li>- <i>Biobanks for tumour, normal tissues &amp; biofluids</i></li> <li>- <i>Validation of tumour markers</i></li> <li>- <i>Antibody production</i></li> <li>- <i>Patient data registries</i></li> <li>- <i>Quality of life assessment</i></li> <li>- .....</li> <li>- <b>Other suggestions...</b></li> </ul> </li> </ul>	- Minimum of 5	- Minimum of ...	- not applicable

<b>Substantial infrastructure focused on cancer care</b>	Minimum scores or present (v)		
<ul style="list-style-type: none"> <li>•Oncology specialties:               <ul style="list-style-type: none"> <li>- <i>Surgical</i></li> <li>- <i>Medical</i></li> <li>- <i>Radiotherapeutical</i></li> <li>- <i>Pediatric</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Obligatory</li> <li>- Obligatory</li> <li>- Obligatory</li> <li>- Optional</li> </ul>	<ul style="list-style-type: none"> <li>- Obligatory</li> <li>- Obligatory</li> <li>- Obligatory</li> <li>- Optional</li> </ul>	<ul style="list-style-type: none"> <li>- Obligatory without Medical onc.</li> <li>- Obligatory without Surgical onc.</li> <li>- Obligatory</li> <li>- Optional</li> </ul>
<ul style="list-style-type: none"> <li>•Multidisciplinary coordination &amp; collaboration by multidisciplinary oncology teams</li> </ul>	<ul style="list-style-type: none"> <li>- obligatory cf. criteria established by OECEI</li> </ul>	<ul style="list-style-type: none"> <li>- obligatory cf. criteria established by OECEI</li> </ul>	<ul style="list-style-type: none"> <li>- not applicable</li> </ul>
<ul style="list-style-type: none"> <li>•Sufficient amount of clinical facilities focused on cancer care:               <ul style="list-style-type: none"> <li>- <i>Preventive service</i></li> <li>- <i>Screening high risk patients/genetic advice</i></li> <li>- <i>Operating rooms (specific to oncology)</i></li> <li>- <i>I.C. beds</i></li> <li>- <i>Radiotherapy units (including accelerators &amp; cobalt unit)</i></li> <li>- <i>Radiology unit (including CT-scanners, mammography &amp; facilities for MRI)</i></li> <li>- <i>Nuclear medicine unit (including Pet-scan, CT-Pet &amp; Radionucleotide facilities)</i></li> <li>- <i>Pathology (cytology &amp; histopathology)</i></li> <li>- <i>Haematology unit</i></li> <li>- <i>Pharmacy-chemotherapy unit</i></li> <li>- <i>Paramedical unit</i></li> <li>- <i>Psycho-social unit</i></li> <li>- <i>Palliative care team</i></li> <li>- <i>Supportive care</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Minimum of 4</li> <li>- Minimum of 4</li> <li>- Full range of diagnostics</li> </ul>	<ul style="list-style-type: none"> <li>-Minimum of ...</li> </ul>	<ul style="list-style-type: none"> <li>- Minimum of ...</li> </ul>
<b>Substantial human resource capacity</b>	Minimum scores or present (v)		
<ul style="list-style-type: none"> <li>•Total number of employees dedicated to cancer care</li> </ul>	<ul style="list-style-type: none"> <li>- 100 fte's specialists</li> <li>- 200 fte's nursing</li> </ul>	<ul style="list-style-type: none"> <li>- ... fte's specialists</li> <li>- ... fte's nursing</li> </ul>	<ul style="list-style-type: none"> <li>- not applicable</li> </ul>
<ul style="list-style-type: none"> <li>•Total number of employees fully dedicated to cancer research (senior staff, postdocs, technicians)</li> </ul>	<ul style="list-style-type: none"> <li>- ... research groups</li> <li>- ... fte's basic</li> <li>- ... fte's translational</li> <li>- ... fte's clinical</li> </ul>	<ul style="list-style-type: none"> <li>- ... fte's clinical</li> </ul>	<ul style="list-style-type: none"> <li>- not applicable</li> </ul>
<b>Substantial financial capacity</b>	Minimum scores or present (v)		
<ul style="list-style-type: none"> <li>•Annual income/ expenditure for cancer care</li> <li>•Annual income/ expenditure for cancer research</li> </ul>	<ul style="list-style-type: none"> <li>- 60 mio €'s/year</li> <li>- 30 mio €'s/year</li> </ul>	<ul style="list-style-type: none"> <li>- ... mio €'s/year</li> <li>- ... mio €'s/year</li> </ul>	<ul style="list-style-type: none"> <li>- ... mio €'s/year</li> <li>- ... mio €'s/year</li> </ul>
<b>Substantial amount of activities focused on education</b>	Minimum scores or present (v)		
<ul style="list-style-type: none"> <li>•Basic education programs (to be defined)</li> <li>•Specialist education programs (idem)</li> <li>•Research education programs (idem)</li> <li>•Scientific meetings/ Seminar program (idem)</li> <li>•Other suggestions...</li> </ul>	<ul style="list-style-type: none"> <li>- Minimum of ...</li> </ul>	<ul style="list-style-type: none"> <li>- Minimum of ...</li> </ul>	<ul style="list-style-type: none"> <li>- Minimum of .../ - not applicable</li> </ul>

OUTPUT CRITERIA	PARAMETERS	PERFORMANCE STANDARD
<b>Quantitative performance</b>		Minimum scores
<ul style="list-style-type: none"> <li>Clinical production (medical, surgical &amp; radiotherapeutical)</li> </ul>	<ul style="list-style-type: none"> <li>Overall number of new cancer registered patients/year</li> <li>pm Further specification of patient numbers and treatments needed?</li> </ul>	<ul style="list-style-type: none"> <li>1000 medical</li> <li>1000 surgical</li> <li>1500 radiotherapeutical</li> </ul>
<ul style="list-style-type: none"> <li>Scientific production (fundamental, translational &amp; clinical research)</li> </ul>	<ul style="list-style-type: none"> <li>Number of active clinical trials (phase I, II, III &amp; IV) (proportion)</li> <li>Number of peer reviewed scientific publications/ year</li> <li>Number of publications in high impact journals</li> <li>List with overview of ongoing research projects</li> </ul>	<ul style="list-style-type: none"> <li>30 fundamental</li> <li>15 translational</li> <li>300 fundamental</li> <li>300 translational</li> <li>200 clinical</li> <li>10 or more</li> <li>...</li> </ul>
<b>Qualitative performance</b>		
<ul style="list-style-type: none"> <li>Scientific performance (fundamental, translational &amp; clinical research)</li> </ul>	<ul style="list-style-type: none"> <li>Impact factor (cumulative &amp; high score) of peer reviewed articles</li> <li>Citation index</li> <li>Membership of a number of formal international research cooperation networks/ framework program EU</li> </ul>	<ul style="list-style-type: none"> <li>... fundamental</li> <li>... translational</li> <li>... clinical</li> <li>...</li> <li>...</li> </ul>
<ul style="list-style-type: none"> <li>Clinical performance</li> </ul> <p>Should be a criteria, but is difficult to indicate at the moment, and therefore to be developed...</p>	<ul style="list-style-type: none"> <li>Percentage of patients included in trials (phase I, II, III &amp; IV)</li> <li>Process or outcome related criteria ???</li> </ul>	<ul style="list-style-type: none"> <li>... surgical oncology</li> <li>... medical oncology</li> <li>... radiotherapeutical oncology</li> </ul>
<ul style="list-style-type: none"> <li>Educational performance</li> </ul>	<ul style="list-style-type: none"> <li>Invited lectures (scientific &amp; other) of senior staff/year</li> <li>Number of educational courses</li> <li>Number of PhD students/year</li> <li>Number (list) of PhD theses/year</li> <li>Number of University? Professors</li> </ul>	<ul style="list-style-type: none"> <li>...</li> <li>...</li> <li>50</li> <li>15</li> <li>10</li> </ul>

## Developments concerning drafts

- Interviews with relevant stakeholders (Eurocan/Stockholm group, OEI, EU-commission, etc.) and more planned
- Discussion with NCI staff.
- Positive reactions.
- Text update, adjustments and additions, no principle objections sofar.
- *The accreditation/ designation methodology is endorsed by the 'Stockholm-group'*

## Relevant issues.....

- Improve and identify appropriate & differentiating infrastructural and output criteria?
- Cooperation with relevant organisations
- Shift emphasis to audit procedure
  - NCI experiences: from 'smart criteria' to an accent on audit/ review
  - Focus more on the range of requirements in order to select proper Centers for the platform
  - Better evaluation of the focus and quality in addition to capacity/volume
- Series of pilots to develop/validate the system 08/09, to be discussed with EU.
- Plan of action October 2008.....



# Discussion & Questions...

# Draft definitions

## Cancer Research Areas UK



- **Fundamental research**

*“Laboratory research activities that lays the foundation of other types of cancer research by the basic study on how cancer cells work ”.*

- **Translational research**

*“Research activities that translate scientific discoveries from basic cancer research into potential practical applications for clinical cancer research and therefore bridges the gap between fundamental research and research with patients”.*

- **Clinical research**

*“Research activities that involve cancer patients by the appliance of clinical trials in which medical, surgical or radiotherapeutical procedures are being tested, aiming to develop more effective treatments for cancer”.*

# History of European Cancer Centers

- EORTC 1968 (1962)
- OECCI 1980 (1977)
- (FECS 1980's) ECCO 2007
- EACR 1968; ESMO 1975; ESTRO 1980; ESSO 1981