Indicators of research activity, output and outcomes

Description

The objective of the EurocanPlatform network is to build a strong platform for translational research in oncology in order to share the resources and infrastructures of that research and produce better research outcomes.

Within this project, we are developing a set of indicators designed to evaluate the activity and production of the translational research performed in the platform in terms of benefits for science and society. A draft list of indicators was drawn from a systematic review and interviews with researchers. In order to make a selection within that list and to set up a list of indicators that are acceptable to all researchers involved, we are conducting a Delphi survey amongst researchers in oncology. Your contribution is highly valuable to us and we thank you in advance to take the time to answer this questionnaire.

The Delphi method is widely used for the task of achieving consensus among a group of experts on a particular topic. Two or more questionnaire rounds are completed to achieve a consensus among panellists selected based on expertise in the relevant field. After each round, the respondents are asked to reconsider their answers based on both their own opinion and the group response to the previous round. Therefore, we need to collect some information such as your name and email address in order to send you the second round questionnaire. However your answers will remain strictly confidential.

Please note that the following indicators are indicators measuring activity, outputs and outcomes (and not inputs) of the research carried out by institutions (cancer centres, hospitals, research units but not countries or individual researchers).

Instructions:

- Indicators are classified into 6 categories: indicators of research activity, indicators of collaboration, indicators of dissemination, indicators of industrial production, indicators of research outcome/impact and bibliometric indicators.
- You will be asked to rate each indicator for its feasibility and validity. The feasibility of an indicator refers to the possibility and burden of measuring an indicator. It includes conditions such as data availability, comparability of data across cancer centres and countries, and burden of data collection. The validity of an indicator means its capacity to measure what it is intended to measure.
- You will be asked to select the most important indicators in each category (maximum of 5 by category)
- You will be invited to provide comments on each indicator
- At the end of the survey you will be invited to provide free comments and provide up to 5 additional indicators measuring research impact (in terms of patient's outcome)

#1. Your name: 2. Your gender: 5 7 8 1. Your year of birth:

Indicators of research activity, output and outcomes
*4. Your academic background (up to three answers possible):
Medical
Pharmacist
Biologist
Chemist
Physicist
Nurse
Other (please precise)
★5. Please indicate the number of years you have worked in cancer research:
▼
6. Please indicate your job title:
7. Please indicate your institution:
7. Flease mulcate your matitution.
▼
Indicators of research activity
Definition: Indicators of research activity are proxies to measure the state and progression of the translational research performed in an institution
The feasibility of an indicator refers to the possibility and burden of measuring it. It includes conditions such as data availability,
comparability of data across cancer centres and countries, and burden of data collection. The validity of an indicator means its capacity to measure what it is intended to measure.
Indicator: Number of clinical trials
Definition : Number of clinical trials (open to patient's inclusion) active in a cancer centre in a specific year
8. Do you understand this indicator?
Yes
○ No

Indicators	of rese	arch ac	tivity ou	itnut and	Loutcom	nes		
		aron ao	ilvity, oc	ilput ark				
9. Feasibilit	_	_		_	_		_	9 (definitely
feasible)	2	3	4	5	6	7	8	feasible)
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
10. Validity	,							
1 (definitely not	2	3	4	5	6	7	8	9 (definitely
valid)								valid)
	\bigcup			\bigcup	\bigcup			
11. Comme	nts							
				~				
Indicator: '	% of nat	tionts inc	duded in	clinical	trial			
Illuicator.	% OI pat	ients inc	luueu iii	Cillical	uriali			
Definition : Nu	imber of pat	tients that pa	erticinate in a	clinical trial/	Number of pa	atients treated	d at a hospi [,]	tal in a specific
year	1111001 01 pc.	nonto triat pa	Thorpato =	Ollinoar ara	Mannoon on po	morno nodes.	1 at a 1100p	tai iii a opeee
12. Do you	understa	and this in	dicator?					
	unuoises	mu tiiis	uicatoi i					
Yes								
○ No								
13. Feasibli	ity							
1 (definitely not	2	3	4	5	6	7	8	9 (definitely
feasible)		Ŏ	~		,	,	Õ	feasible)
\cup	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup		\bigcup
14. Validity	,							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
15. Comme	nto			J		J		
13. Comme	;ntə			<u> </u>				
				~				
Indicator:	Number	of biom	arkers id	lentified				
Definition : Νι	umber of bio	markers ider	ntified by the	research ins	titution. A bio	marker is 'a t	oiological ch	naracteristic that
is objectively in pharmacologic					l biological pro	ocesses, path	hogenic pro	cesses, or
priarriacologic	, responses	io a inerape	tutic interveni	lion				

16. Do you								
	understa	and this in	dicator?					
Yes								
O No								
17. Feasibil	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
18. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc
19. Comme	nts							
				_				
				~				
Indicator :	Numhe	r of natic	nts in a	clinical t	rial that i	nclude h	iomarke	ar i
	TTGIII DO	i oi patic			ilai tilat i		iomarke	,
Definition : Nu	•	tients in a cli	nical trial tha	t include bior	narker identifi	ication/ numb	er of patier	nts in a clinical
trial in a specif								
20. Do you								
	understa	and this in	dicator?					
Yes	understa	and this in	dicator?					
	understa	and this in	dicator?					
Yes No 21. Feasibil		and this in	dicator?					
Yes No		and this in	dicator?	5	6	7	8	9 (definitely feasible)
Yes No 21. Feasibil 1 (definitely not	ity			5	6	7	8	
Yes No 21. Feasibil 1 (definitely not	ity			5	6	7	8	feasible)
Yes No 21. Feasibil 1 (definitely not feasible)	ity			5 5	6	7 7	8	
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not	i ty 2	3	4		0	0	\bigcirc	feasible) 9 (definitely
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not	2 	3	4		0	0	\bigcirc	feasible) 9 (definitely
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not valid)	2 	3	4		0	0	\bigcirc	feasible) 9 (definitely
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not valid)	2 	3	4		0	0	\bigcirc	feasible) 9 (definitely
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not valid) 23. Comme	2 	3 3 ——————————————————————————————————	4	5	6	0	\bigcirc	feasible) 9 (definitely
Yes No 21. Feasibil 1 (definitely not feasible) 22. Validity 1(definitely not valid)	2 	3 3 ——————————————————————————————————	4	5	6	0	\bigcirc	feasible) 9 (definitely

Indicators	of rese	arch ac	tivity, ou	itput and	d outcon	nes		
24. Do you	understa	and this in	dicator?					
Yes								
○ No								
25. Feasibil	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\circ	\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
26. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
Ó	\bigcirc			\bigcirc	\bigcirc		\bigcirc	
27. Comme	nts							
				_				
				~				
Indicator: I	Number	of diagn	ostic tes	st create	d			
Number of dia	-	·	·	of 3 years.				
28. Do you	underst	and this q	uestion?					
Yes								
○ No								
29. Feasibil	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
30. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	
31. Comme	nts							
				_				
				V				
Indicator:	Numbe	r of hypo	theses g	enerate	d			
Definition N		and by the		taal le	ad mass : : !			f 2 ves
Definition : Nu	mper of res	searcn nypoth	neses transla	tea in approv	ea research p	proposals ove	er a period c	ਸ ਤ years
							·	•

Indicators	Indicators of research activity, output and outcomes											
32. Do you	understa	nd this in	dicator?									
Yes												
○ No												
33. Feasibil	ity											
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)				
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					
34. Validity												
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)				
O Valid)	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	O				
35. Comme	nts											
				▼								
Indicator:	Numbe	r of assa	vs devel	oned								
		. 01 4004	, o do to:	opou								
Definition: Nu	mber of ass	says develop	ed by an inst	itution over t	he last 3 year	s						
36. Do you	understa	nd this in	dicator?									
Yes												
○ No												
37. Feasibil	itv											
1 (definitely not	2	3	4	5	6	7	8	9 (definitely				
feasible)	\bigcirc	\bigcirc		\bigcirc		\bigcirc		feasible)				
38. Validity			O		0							
1 (definitely not	2	3	4	5	6	7	8	9 (definitely				
valid)	\bigcap						\bigcirc	valid)				
39. Comme	nte											
	111.5			_								
				~								
					_	_		_				
Indicator:	Number	of datal	pases ge	nerated								
Number of res	search datal	oases create	d by an instit	ution over a	period of 3 ve	ars. Bv datah	oase we me	an a repository				
that aggregate								and a repository				

Indicators	of rese	arch ac	tivity, ou	itput and	doutcon	nes		
40. Do you	understa	and this in	dicator?					
Yes No								
41. Feasibili	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely
leasible)	\bigcirc		\bigcirc	\bigcirc			\bigcirc	feasible)
42. Validity								
1 (definitely not	2	3	4	5	6	7	8	9 (definitely
valid)	\bigcirc	\bigcirc			\bigcirc	\bigcirc		valid)
43. Comme	nts							
				~				
Indicator: I	Numbe	r of resea	arch proi	ects ond	oina			
					9			
44. Do you i	understa	and this in	dicator?					
Yes No								
45. Feasibili	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	
46. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
O	\bigcirc	\bigcirc		\bigcirc	\bigcirc		\bigcirc	
47. Comme	nts							
				▼				
Indicator: I	Numbe	r of spin-	off comp	anies cr	eated			
		•						
Definition : Nur	mber of spi	in-off created	originating fr	om an institu	tion over a pe	riod of 3 year	rs	

Indicators	of rese	earch ac	tivity, ou	tput and	d outcom	nes		
48. Do you	understa	and this in	dicator?					
Yes								
O No								
49. Feasibi	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	
50. Validity	1							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
Valid)	\bigcirc					\bigcirc	\bigcirc	Valid)
51. Comme	ents							
				~				
Indicator:	Numbo	r of vicite	s to the F	EVDASV	COMMON			
illuicator.	Nullibe	i oi visits	s to the E	INPAS I	Server			
The EXPASY						cture for bioir	nformatics.	This indicator
measures the	number of	visits to this	platform in a	specific year				
52. Do you	understa	and this in	dicator?					
Yes								
O No								
53. Feasibi	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
54. Validity	1							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
55. Commo	ents							
				~				
Indicator	selection	n						
-indicator s	ociectivi							

*56. Please selec		-	and outcoment indicators in the second secon		ry (maximum
5)				-J -	, (
	1 (Most important indicator of the selection)	2	3	4	5 (Least important indicator of the selection)
Number of clinical trials	\bigcirc	\bigcirc	0	0	\bigcirc
% of patients included in clinical trial	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of biomarkers identified	\circ	\circ	\bigcirc	\circ	\bigcirc
Number of patients in a clinical trial that include biomarker identification	\circ	\bigcirc	\circ	\bigcirc	\circ
Number of biospecimen collected	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of diagnostic tests developed	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of databases generated	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of hypotheses generated	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of assays developed	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of research projects ongoing	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of spin-off companies created	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of visits to EXPASY server	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
ndicators of res	earch impact	outcome			
Definition: These indica outcomes, health care		•	earch, or how muc	h it results in cha	nges in patients'
The feasibility of an indicator comparability of data across of capacity to measure what it is	cancer centres and count				
ndicator: Citatio	n of research	in clinical	guidelines		
Definition : Number of a	articles that are cited	l in clinical guide	elines published in	the last 5 years	
57. Do you unders	tand this indica	itor?			
Yes					
No					

Indicators	of rese	arch act	tivity, ou	itput and	doutcom	nes		
58. Feasibil	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
59. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
O	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
60. Comme	nts							
				_				
				~				
Indicator: (Citat <u>io</u> r	of resea	ırch in pı	ublic hea	lth guide	lines		
		_	_	_		_		
Definition : Nu	mber of art	icles that are	cited in police	cy or public h	ealth guidelin	es published	in the last	5 years
61. Do you	understa	and this in	dicator?					
Yes								
○ No								
62. Feasibil	ity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
O	\bigcirc	\bigcirc			\bigcirc		\bigcirc	
63. Validity								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	
64. Comme	nts							
				_				
				~				
Indicator: (Genera	tion of cl	inical qu	idelines				
			oa. gu					
Definition : Nu	mber of cli	nical guidelin	es published	in the last 3	years authore	ed by researc	hers from a	n institution
65. Do you	understa	and this in	dicator?					
Yes								
○ No								

Indicators	of rese	arch ac	tivity, ou	itput and	d outcon	nes		
66. Feasibil 1 (definitely not	lity 2	3	4	5	6	7	8	9 (definitely
feasible)		Ů		Ů		,		feasible)
67. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
Valid)	\circ	\circ	\circ	\bigcirc	\circ	\circ		O Valid)
68. Comme	ents		_	_	_	_		_
				*				
Indicator:	Change	s in clinic	cal pract	ice				
Definition : Nu calculate it ove			in clinical pr	ractices stimu	ulated by a pa	ırticular scier	ntific result.	We propose to
69. Do you	understa	and this in	dicator?					
Yes No								
70. Feasibil	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
- 4 W II II4								
71. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\circ	\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc
72. Comme	ents							
				A V				
Indicator:	Contrib	ution to	reports i	nforming	policy m	akers		
Definition : Nu	ımber of po	licy reports p	ublished in t	he last 3 yea	rs written by a	at least one n	nember of a	n institution
73. Do you	understa	and this in	dicator?					
								
Yes No								

Indicators	of rese	arch act	tivity, ou	itput and	d outcom	nes		
74. Feasibil 1 (definitely not feasible)	ity 2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc		
75. Validity 1 (definitely not	2	3	4	5	6	7	8	9 (definitely
valid)	\bigcap	Ů				,		valid)
76 6	4							
76. Comme	nts			<u> </u>				
Indicator: (Clinicia	ns' awar	eness of	researc	h results			
Definition : Nu	mber of cli	nicians havinç	g read article	s from an ins	stitution publis	hed in the la	st 3 years	
77. Do you	understa	and this in	dicator?					
Yes								
○ No								
78. Feasibil 1 (definitely not feasible)	ity 2	3	4	5	6	7	8	9 (definitely feasible)
(leasible)	\bigcirc	\bigcirc		\bigcirc		\bigcirc		(leasible)
79. Validity 1 (definitely not								9 (definitely
valid)	2	3	4	5	6	7	8	valid)
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
80. Comme	nts			_				
				~				
Indicator s	electio	1						

Indicators of res	earch activ	ity, out	put an	u outcon	nes					
fst81. Please select and rank the most important indicators in that category (5 max)										
	1 (Most important indicator)	2		3	4	5 (Least i indic	important ator)			
Citation of research in clinical guidelines	\circ	\bigcirc		\bigcirc	\bigcirc		\supset			
Citation of research in public health guidelines	\bigcirc	\bigcirc		\bigcirc	\bigcirc		\supset			
Generation of clinical guidelines	\bigcirc	\bigcirc		\bigcirc	\circ		\supset			
Changes in clinical practice	\bigcirc	\bigcirc		\bigcirc	\bigcirc		\supset			
Contribution to reports informing policy makers	\circ	\circ		\bigcirc	\circ		\supset			
Clinicians' awareness of research results	\bigcirc	\bigcirc		\bigcirc	\bigcirc					
Indicators of coll	aboration									
Definition: Indicators of institutions, or between				-			more			
The feasibility of an indicator comparability of data across capacity to measure what it is	ancer centres and co	untries, and bu	_							
Indicator: Partne	rship Ability	/ Index ((PHI-inc	dex)						
Definition : The PHI indentity his co-authors over a pe		number of c	o-authors \	with the frequ	ency of joint activ	ities betweer	ı him and			
82. Do you unders	tand this indi	cator?								
Yes No										
83. Feasibility										
1 (definitely not feasible)	3	4	5	6	7	X	(definitely easible)			
\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc				
84. Validity 1 (definitely not						9 ((definitely			
valid) 2	3	4	5	6	7	8	valid)			
85. Comments										
			A							
			~							

Indicators	of rese	earch ac	tivity, ou	itput and	doutcon	nes		
Indicator:	Numbe	r of co-aเ	ıthored p	oublicatio	on			
Definition : Nu		ticles that hav	e been co-au	uthored with o	one or more o	other institutio	ons (such as	s hospital) over a
*86. Do y	ou under	stand this	indicator	?				
Yes No								
87. Feasibi	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
88. Validity	1							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
89. Comme	ents							
				▼				
Indicator:	Number	r of articl	es with i	nternatio	onal colla	boration		
Definition: The period of 3 year		of publications	of an institu	tion that have	e been co-aut	hored with or	ne or more o	countries over a
90. Do you	understa	and this in	dicator?					
Yes								
○ No								
91. Feasibi	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	
92. Validity	1							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
Valid)	\bigcirc				\bigcirc		\bigcirc	Valid)
93. Comme	ents							
				_				
				7				

Indicators of research activity, output and outcomes Indicator: Number of articles that involve collaboration between an epidemi... Definition: Number of publications co-authored by an epidemiologist and a biologist over a period of 3 years 94. Do you understand this indicator? No 95. Feasibility 1 (definitely not 9 (definitely 2 6 feasible) feasible) 96. Validity 1 (definitely not 9 (definitely 2 3 6 5 8 valid) valid) 97. Comments Indicator: Proportion of long-distance collaborative publication Definition: The proportion of the articles published in the last 3 years that have geographical collaboration distance of more than 1000 km 98. Do you understand this indicator? Yes No 99. Feasibility 1 (definitely not 9 (definitely 2 3 5 6 7 4 8 feasible) feasible) 100. Validity 1 (definitely not 9 (definitely 2 3 6 7 5 valid) valid) 101. Comments

Indicator: d-index (dependence degree)

Indicators of resea	rch activity,	output ar	nd outcor	nes		
Definition : Considering a rescientific collaboration of a						
102. Do you understa	and this indica	tor?				
Yes No						
103. Feasibility						
1 (definitely not 2 feasible)	3 4	5	6	7	8	9 (definitely feasible)
\circ	0 0	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
104. Validity 1 (definitely not	2	5	6	7	0	9 (definitely
valid) 2	3 4	5	6	7	8	valid)
105. Comments						
103. Comments						
Indicator selection						
Please select and rank the	most important inc	dicators in this o	category (maxii	mum 5)		
*106. Please select	and rank the m	ıost importa	nt indicato	rs in this o	ategory	
	ost important indicator)	2		3	4 (Least impo	rtant indicator)
Partnership Ability Index (PHI-index)	0)
Number of co-authored publication	\circ	\bigcirc		\bigcirc	(\mathcal{I}
Number of articles with international collaboration	\bigcirc	0		\bigcirc		
Number of publications that involve collaboration between an epidemiologist and a biologist	0			0)
d-index				\bigcirc		\supset
Indicators of disser	mination					
Definition: Indicators of diss towards the society (or the			esearch results	are dissemi	nated or comm	unicated

Indicators of research activity, output and outcomes

The feasibility of an indicator refers to the possibility and burden of measuring it. It includes conditions such as data availability, comparability of data across cancer centres and countries, and burden of data collection. The validity of an indicator means its capacity to measure what it is intended to measure.

Indicator: (Citatior	n in medic	cal educa	ation boo	ks							
Definition : Nu	mber of ar	ticles written t	oy an instituti	on cited in m	edical educat	tion books ov	er a period	of 3 years				
107. Do you	ı unders	tand this i	ndicator?									
Yes No												
108. Feasib	108. Feasibility											
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)				
\bigcirc	\bigcirc	\bigcirc	\circ	\circ	\bigcirc	\circ	\bigcirc	\bigcirc				
109. Validit	y											
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)				
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc				
110. Comm	ents			<u>~</u>								
Indicator:	Numbe	r of prese	entations	at key s	elected (conferen	ce					
Definition : Nu	mber of pr	esentations a	t key selected	d conference	by the institu	tion over a p	eriod of 3 ye	ears				
111. Do you	ı unders	tand this i	ndicator?									
Yes No												
112. Feasib	ility											
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)				
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc				
113. Validit	y											
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)				
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc					

ndicators of research activity, output and outcomes									
114. Comn	nents								
				▼					
Indicator:	Numbe	r of confe	erence h	eld					
Definition : No	umber of co	nference held	I by the institu	ution over a p	period of 3 ye	ars			
115. Do yo	u unders	tand this i	ndicator?	1					
Yes No									
116. Feasil	oilitv								
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)	
leasible)	\bigcirc		\bigcirc	\bigcirc	\bigcirc		\bigcirc	(leasible)	
117. Validit	ty								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)	
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
118. Comn	nents								
				V					
Indicator:	Reporti	ng of res	earch in	the new	s/media				
Definition : No					eriod of 3 yea	rs			
119. Do yo	u unders	tand this i	ndicator?	•					
Yes									
○ No									
120. Feasil 1 (definitely not	blity							9 (definitely	
feasible)	2	3	4	5	6	7	8	feasible)	
	\bigcup	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
121. Validit 1 (definitely not	_							9 (definitely	
valid)	2	3	4	5	6	7	8	valid)	
	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup	\bigcup	

Indicators o	f resea	rch act	ivity, ou	itput and	loutcom	es		
122. Comme	nts			A				
				$\overline{\mathbf{v}}$				
Indicator se	lection							
*123. Pleas				important	indicators	in that c		
Citation in medical	1 (Mo:	st important ir	ndicator)	2		3	4 (Least im	portant indicator)
education books								
Number of presenta key selected confere		\bigcirc		\bigcirc		\bigcirc		\bigcirc
Number of conferent held	ice	\bigcirc		\bigcirc		\bigcirc		\bigcirc
Reporting of researce the news/media	ch in	\bigcirc		\bigcirc		\bigcirc		\bigcirc
Indicators o	f indust	rial pro	duction					
Definition: Indica industries and re		•	uction measu	ire the outcor	nes of the col	laborative a	ctivities betv	veen biomedical
The feasibility of an i		-	•	_				•
comparability of data capacity to measure				burden of data	collection. The va	andity of all ind	icator means n	.5
Indicator: N	umber c	of public	c-private	partner	ships			
Definition : Numl	ber of public	c-private pa	artnership. A	public-private	partnership i	s a long tern	n agreemen	t between an
academic resear						J	S	
124. Do you i	understa	nd this i	ndicator?	•				
Yes								
No								
125. Feasibili	ity							
1 (definitely not	2	3	4	5	6	7	8	9 (definitely
feasible)	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	feasible)
126. Validity								
1 (definitely not	2	3	4	5	6	7	8	9 (definitely
valid)	\bigcirc			\bigcirc	\bigcirc	\bigcirc	\bigcirc	valid)

Indicators	of rese	earch ac	tivity, ou	itput and	doutcon	nes			
127. Comm	ents								
				7					
Indicator:	Numbe	r of pape	rs co-au	thored w	ith the in	dustry			
Definition: Number of articles published by an institution over a period of 3 years that include at least one author affiliated to a health industry									
128. Do yo	u unders	tand this i	ndicator?	•					
Yes No									
129. Feasib	oility								
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)	
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		
130. Validit	у								
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)	
	\circ	\circ	\circ	\bigcirc	\circ	\bigcirc	\circ	\bigcirc	
131. Comm	ents								
				7					
Indicator:	Numbe	r of pater	nts						
Definition : Nu	ımher of nat	tents annlied	for or approv	ed over a ner	ind of 3 years				
	•			·	iou oi o youro	•			
132. Do you	u unuers	tanu tins i	muicator i						
○ No									
133 Foosib	.:I:4.,								
133. Feasib	2 2	3	4	5	6	7	8	9 (definitely	
feasible)		Ô		Ö	Ö	, ()	Ô	feasible)	
134. Validit	v								
1 (definitely not	2	3	4	5	6	7	8	9 (definitely	
valid)	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	valid)	
	_	_	-			_		_	

Indicators	of rese	arch ac	tivity, ou	itput and	doutcon	nes		
135. Comm	ents							
				Y				
Indicator:	Number	of paten	nt citatio	ns				
Definition : Nu	mber of pa	tents from ar	n institutions	that are cited	l in subseque	nt patent app	olications in	the last 3 years
136. Do you	unders	tand this i	ndicator?	,				
Yes								
○ No								
137. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc					\bigcirc	
138. Validit	у							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc					\bigcirc	
139. Comm	ents							
				$\overline{\mathbf{v}}$				
Indicator: I	Patent I	n-index						
Definition : Ind	licator that	combines the	number of p	atents and the	ne patent cita	tion count ov	er a period	of 3 years
140. Do you	unders	tand this i	ndicator?	,				
Yes								
○ No								
141. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	
142. Validit	у							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	

Indicators of res	earch acti	vity, ou	tput and	d outcom	nes					
143. Comments										
			7							
Indicator: Citatio	on of resear	ch in pa	itents							
Definition : Number of p	patents applied f	or in the las	t 3 years tha	t cite researc	h produced by	/ an institu	tion			
144. Do you under	stand this in	dicator?								
Yes										
○ No										
44E Esseibility										
145. Feasibility 1 (definitely not							9 (definitely			
feasible)	3	4	5	6	7	8	feasible)			
0	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc			
146. Validity										
1 (definitely not valid)	3	4	5	6	7	8	9 (definitely valid)			
\circ	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc				
147. Comments										
			_							
			~							
			_	-	-	-	_			
Indicator selection	on									
≭148. Please sel €	ect and rank	the most	important	t indicators	s in that ca	tegory (ı	max. 5)			
	1 (Most important	2		3	4		_east important			
Number of public-private	indicator))				indicator)			
partnerships										
Number of papers co- authored with the industry	\bigcirc)	\bigcirc	\bigcirc		\bigcirc			
Number of patents	\circ	C)	\bigcirc						
Number of patent citations	Ŏ	Č)	\circ	\circ		\circ			
Patent h-index	\bigcirc	\subseteq		\bigcirc	\bigcirc		\bigcirc			
Citation of research in patents	\bigcirc	C)	\bigcirc	\bigcirc		\bigcirc			
Bibliometric indi	cators									
Definition: Bibliometric	indicators measi	ure the prod	uction of a r	esearch institu	ite based on t	their nublic	ation record			

Indicators of research activity, output and outcomes The feasibility of an indicator refers to the possibility and burden of measuring it. It includes conditions such as data availability, comparability of data across cancer centres and countries, and burden of data collection. The validity of an indicator means its capacity to measure what it is intended to measure. **Indicator: Number of publications** Definition: Number of peer-reviewed publications authored by the institution over a period of 3 years 149. Do you understand this indicator? 150. Feasibility 1 (definitely not 9 (definitely 5 6 7 8 feasible) feasible) 151. Validity 1 (definitely not 9 (definitely valid) valid) 152. Comments **Indicator: Number of citations** Definition: Number of citations received by a group of researchers from published articles over the last 3 years 153. Do you understand this indicator? 154. Feasibility 1 (definitely not 9 (definitely 8 feasible) feasible) 155. Validity 1 (definitely not 9 (definitely valid) valid)

ndicators of research activity, output and outcomes										
156. Comm	nents									
				_						
				7						
Indicator:	Mean ci	tations p	er article)						
Definition : Th	ne mean nu	mber of citation	on per article	s published i	n the last 3 ye	ears				
157. Do yo	u unders	tand this i	ndicator?							
Yes										
○ No										
158. Feasik	oility							0 (definitely		
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)		
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		
159. Validit	ty									
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)		
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		
160. Comments										
				$\overline{}$						
Indicator:	H-index	for insti	tutions							
Definition : The We propose to				ticles produc	ed by a resea	arch units and	d the number	er of its citations		
161. Do yo	u unaers	tanu tnis i	ndicator							
Yes No										
<u> </u>										
162. Feasik	oility							O (definitely		
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)		
\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc		
163. Validit	ty									
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)		
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc			

Indicators	of rese	arch ac	tivity, ou	itput and	doutcom	nes		
164. Comm	ents							
				V				
Indicator:	Journal	impact f	actor					
								f a journal over over a period of
165. Do you	u unders	tand this i	ndicator?	•				
Yes No								
166. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
167. Validit	у							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
\circ	\circ	\circ	\circ	\bigcirc	\circ	\circ	\circ	\bigcirc
168. Comm	ents							
				<u>-</u>				
		_	_		-	-	-	_
Indicator: :	z-tactor							
Definition : Th						•	t factor of th	e journals in
•	•			·	ou oi 3 years			
169. Do you	u unaers	tand this i	naicator					
○ No								
170. Feasib	ilitv							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
O	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	(leasible)

Indicators	of rese	arch act	tivity, ou	itput and	doutcom	nes		
171. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
\cup	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
172. Comm	ents							
				▽				
Indicator: I	Number	of publi	cations i	n top-rar	nked jour	nals		
Definition : Nui	•		•	ty journals of	the discipline	according to	their impa	ct factor. We
173. Do you	underst	tand this i	ndicator?					
Yes								
No								
174. Feasib i	•		·			_		9 (definitely
feasible)	2	3	4	5	6	7	8	feasible)
475 14 17 174	\cup		\cup	\cup		\cup		
175. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
176. Comm	ents							
	_	_	_		_	_	_	_
Indicator: I	Number	of highly	y cited p	ublicatio	ns			
Definition: Nulperiod of 3 year		icles produce	d by an instit	tution that ha	ve a citation o	count above a	a certain thr	eshold over a
177. D o you	ı underst	tand this i	ndicator?					
Yes								
O No								
178. Feasibi	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc			\bigcirc	\bigcirc	

Indicators	of rese	arch ac	tivity, ou	itput and	doutcom	nes		
179. Validit 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
180. Comm	ents							
				<u>~</u>				
Indicator:	Crown i	ndicator						
Definition : Av of the same ty 181. Do you Yes No	ype publishe	ed on journals	s of the same	e type. We pi				ed for publication 3 years
182. Feasib 1 (definitely not feasible)	pility 2	3	4	5	6	7	8	9 (definitely feasible)
183. Validit 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
184. Comm	ents							
Indicator:	SP-inde	×						
Definition : Inc propose to ca 185. Do you Yes No	lculate it ove	er a period of	f 3 years		f citations and	d impact fact	or of publica	ations. We
186. Feasib 1 (definitely not feasible)	oility 2	3	4	5	6	7	8	9 (definitely feasible)

Indicate	ors of rese	arch ac	tivity, ou	itput and	doutcom	nes		
187. Va 1 (definitely valid)	_	3	4	5	6	7	8	9 (definitely valid)
188. Co	omments							
				<u>~</u>				
Indicat	or: b-index							
	n : Number of pa period of 3 years		entist that be	long to the to	p 10% of pap	ers in that fi	eld. We prop	pose to calculate
189. Do	o you unders	tand this i	indicator?	•				
Yes No								
190. Fe	asibility							
1 (definitely feasible	,	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
191. Va 1 (definitely valid)	_	3	4	5	6	7	8	9 (definitely valid)
192. Co	omments							
				<u>~</u>				
Indicat	or: Mean ci	tations p	er papei	'S				
Definition	n : The mean of o	citation per a	rticles in the	last 3 years.				
193. Do Yes No	o you unders	tand this i	indicator?	•				
194. Fe	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	

Indicators of research activity, output and outcomes								
195. Validit definitely not valid	sy O	0	0	0	0	0	0	definitely valid
196. Comm	ents							
				A				
				V				
Indicator: j	j-index							
Definition : Th							oublications	in the h-core
197. Do you	u unders	tand this i	ndicator?)				
Yes								
No								
198. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	
199. Validit	y							
1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
200. Comm	ents							
				_				
				Y				
Indicator:	e-index							
Definition : An	ı h-index wi	th ignored ex	cess citation	s. We propos	se to calculate	e it over a pe	riod of 3 ye	ars
201. Do you	u unders	tand this i	ndicator?	•				
Yes No								
202. Feasib	oility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)

Indicators	of rese	arch ac	tivity, ou	itput and	doutcom	nes		
203. Validit	2 	3	4	5	6	7	8	9 (definitely valid)
204. Comm	ents							
				¥				
Indicator:	w-index	(
Definition: If a w-index is the 205. Do you	highest nur	mber of pape	rs one has th	nat have each				ey received, the ns
Yes No								
206. Feasib 1 (definitely not feasible)	2 C	3	4	5	6	7	8	9 (definitely feasible)
207. Validit	2	3	4	5	6	7	8	9 (definitely valid)
208. Comm	ents							
				*				
Indicator:	Central	index						
Definition: Indicator that corrects biases of mass collaboration and punctual success by not considering all production and impact								
209. Do you Yes No	unders	tanu tiiis i	nuicator					
210. Feasib 1 (definitely not feasible)	2 °	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc		\bigcirc		\bigcirc	

Indicators of research activity, output and outcomes								
211. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
212. Comme	ents							
				~				
Indicator: x	-index							
Definition : Independent of 3 year		ed from the r	number of na	tional articles	in top 1% an	d 0.1% of hi	ghly cited a	ticles over a
213. Do you	unders	tand this i	ndicator?	•				
Yes No								
214. Feasibi	lity							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
215. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
216. Comme	ents							
				~				
Indicator: n	n-inde	(
Definition : The	median n	umber of cita	itions receive	d by papers	that have a ra	nking that is	equal to or	smaller than h
217. Do you Yes No		tand this i	ndicator?	,				
218. Feasibi 1 (definitely not								9 (definitely
feasible)	2	3	4	5	6	7	8	feasible)
							\cup	

Indicators of	of resea	arch act	tivity, ou	tput and	outcom	es		
219. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
220. Commo	ents							
				<u>-</u>				
Indicator: 0	Q² index	(
Definition : The product of the I	h- and m- ir	ndices. We p	ropose to ca	lculate it over			s the square	root of the
222. Feasibi 1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
223. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
224. Comme	ents			<u> </u>				
Indicator: r	m-quotic	ent						
Definition : h-in 225. Do you Yes No 226. Feasibi	underst				Ve propose to	o calculate it	over a peric	od of 3 years
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
O	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	

Indicators	of rese	arch act	tivity, ou	tput and	doutcom	nes		
227. Validity 1 (definitely not valid)	2 	3	4	5	6	7	8	9 (definitely valid)
228. Comm	ents							
				~				
Indicator:	AWCR (age-weig	ghted cita	ation rati	o)			
Definition : The We propose to				entire body o	f work adjuste	d for the age	of each ind	ividual paper.
229. Do you	ı underst	tand this i	ndicator?					
Yes No								
230. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
\circ	\bigcirc	\bigcirc	\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc	
231. Validity 1 (definitely not valid)	2 	3	4	5	6	7	8	9 (definitely valid)
232. Comm	ents							
				<u>^</u>				
Indicator: I	Mean no	ormalise	d citation	1 score				
Definition : Ave fields, between 233. Do you	n publication	n years, and	document ty	pes. We prop	•			
○ No	•••••							
234. Feasib 1 (definitely not	ili ty 2	3	4	5	6	7	8	9 (definitely
feasible)	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	feasible)

Indicators	of rese	arch ac	tivity, ou	itput and	doutcom	nes		
235. Validity 1 (definitely not valid)	2	3	4	5	6	7	8	9 (definitely valid)
236. Comm	ents							
				~				
Indicator: (Citer h-i	ndex (Cl	h-index)					
Definition : The citers	e number s	uch that for a	ı general grou	up of papers,	ch papers ar	e cited by no	more than	ch different
237. Do you	underst	tand this i	ndicator?					
Yes No								
238. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	
239. Validity 1 (definitely not valid)	2 	3	4	5	6	7	8	9 (definitely valid)
240. Comm	ents							
				<u>^</u>				
Indicator: r	-index							
Definition: h-index revised by weighting four times more the first and last authors. We propose to calculate it over a period of 3 years								
241. Do you	underst	tand this i	ndicator?					
Yes No								
242. Feasib	ility							
1 (definitely not feasible)	2	3	4	5	6	7	8	9 (definitely feasible)
	\bigcirc							

243. Validity 1 (definitely not valid) 2	Indicators of research activity, output and outcomes								
Indicator: g-index Definition: A set of papers has a g-index if g is the highest rank such that top g papers have, together, at least g² citations. We propose to calculate it over a period of 3 years 245. Do you understand this indicator? Yes No 246. Feasibility 1 (definitely not feasible) 2 3 4 5 6 7 8 9 (definitely feasible) 247. Validity 1 (definitely not valid) 2 3 4 5 6 7 8 9 (definitely valid) 248. Comments Indicator: hg-index Definition: The hg index of a researcher is computed as the geometric mean of his h and g indices. We propose to calculate it over a period of 3 years 249. Do you understand this indicator? Yes No 250. Feasibility 1 (definitely not 2 3 4 5 6 7 8 9 (definitely tot 2 8 9 (definitely tot 2 8 9)	1 (definitely not		3	4	5	6	7	8	
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2 3 4 5 6 7 8		ility							9 (definitely
		2	3	4	5	6	7	8	

Indicators of rese	earch activi	ty, output ar	nd outcom	nes	
251. Validity 1 (definitely not					9 (definitely
valid)	3	4 5	6	7	8 valid)
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252. Comments					
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Indicator selection	n				
*050 Bl	-4 1 1- 41-	4	.4 !!!4	- ! 4144	(F)
*253. Please selec	ct and rank tn 1 (Most important	e most importa	nt indicators	s in that categ	ory (5 max) 5 (Least important
	indicator)	2	3	4	indicator)
Number of publications	\bigcirc	O	O	O	O
Number of citations	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Mean citations per article	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
H-index for institutions	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Journal impact factor	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
z-factor	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of publications in top-ranked journals	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Number of highly cited publications	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Crown indicator		\bigcirc	\bigcirc	\bigcirc	
SP-index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
b-index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Mean citation per papers	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
j-index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
e-index	\bigcirc	\bigcirc	O	Q	\bigcirc
w-index	\bigcirc	O	\bigcirc	O	\bigcirc
Central index	O	O	\bigcirc	O	O
x-index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
m-index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Q² index	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
m-quotient	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Age-Weighted Citation Ratio	0	0	0	O	O
Mean normalised citation score	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Citer h-index	\bigcirc		\bigcirc	\bigcirc	\bigcirc
r-index	Ō	\bigcirc	Ō	Ō	\bigcirc
g-index					

ndicators of research activity, output and outcomes									
g-index									
hg-index	0	O	O	O	0				
Suggestions an	d comments								
254. Suggestions	s for other indica	ators measurin	a research im	pact (maximun	n 5)				
1			9		• ,				
2									
3									
4									
5									
255. General com	nments								
		V							