

Work And Budget Plan

CA18202 Grant Agreement Period 3

01/11/2021 to 31/10/2022

Action Profile

Action General Information

Action Code	CA18202	MC Chair	Prof Demetrio Milea
Action Title	CA18202 - Network for Equilibria and Chemical Thermodynamics Advanced Research		
MOU	019/19	Draft MOU	OC-2018-2-23144
CSO Approval Date	2019-06-04		
Action Start Date	2019-10-02	Action End Date	2023-10-01
Science Officer	Dr Mónica Pérez-Cabero	Administrative Officer	Ms Carmencita Malimban

Participating COST Members:

	ITC		Non-ITC		Total
	Number		Number		
COST Members (countries) having accepted the MoU	Number	22	Number	18	40
	% of ITC in Action	55%	% of non-ITC in Action	45%	
	% of all ITC	100%	% of all non-ITC	105.88%	
Number of Action MC members	35		21		56

COST Member and Acceptance Date		
AL 31/03/2021	HU 02/07/2019	PL 25/06/2019
AT 28/04/2020	IS 27/06/2019	PT 03/07/2019
BE 10/09/2019	IE 18/02/2020	RO 04/10/2019
BA 10/07/2020	IL 02/11/2021	RS 12/07/2019
BG 28/11/2019	IT 27/06/2019	SK 25/10/2019
HR 18/07/2019	LV 02/11/2021	SI 01/07/2019
CY 02/11/2021	LT 24/07/2019	ZA 02/11/2021
CZ 10/07/2019	LU 02/11/2021	ES 22/07/2019
DK 04/09/2019	MT 27/06/2019	SE 02/11/2021
EE 26/04/2020	MD 13/08/2019	CH 25/06/2019
	ME 02/11/2021	TR 26/06/2019
	NL 02/11/2021	UK 17/05/2021
	MK 17/09/2019	

FI 15/04/2020

FR 25/06/2019

DE 02/07/2019

EL 07/04/2020

NO 02/11/2021

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International cooperation

	NNC	IPC	Specific Organisation	Total
Number of entities formally approved to join Action	0	0	0	0
Number of countries	0	0	0	0

Working Groups

	WG Title	WG Leader	Number of WG members
WG1	NECTAR for highly hydrolysable (HHC) and/or low-valence state (LVC) cations.	Dr Montserrat Filella	20
WG2	NECTAR for strong and/or multifunctional ligands, macromolecules, polyelectrolytes.	Prof Petr Hermann	20
WG3	NECTAR for multicomponent solutions and complex matrices.	Prof Slobodan Gadzuric	20
WG4	NECTAR tools, services and facilities.	Prof Aleksandar Cvetkovski	20
WG5	NECTAR for the future: new trends and exploitation of results.	Dr Natalia Busto	40

MoU objectives, Action deliverables and Grant Agreement Period Goals

Action Objectives from MoU

Aim/primary Objective
provide a scientific and technological platform to gather together, under a unique network, a critical mass of European research groups with a strong expertise in chemical equilibria with industrial stakeholders, with the valuable reinforcement of international partners and European enterprises.
Secondary objectives
<ol style="list-style-type: none"> 1. Give response to actual scientific and technological challenges. In the wide field of equilibrium thermodynamics, particular attention will be paid to four specific areas: i) biology and medicine; ii) environmental science; iii) technology and industry; iv) modelling and software development. 2. Develop new technologies. The multidisciplinary and diversity of expertise within NECTAR will bring about a demand for developing new technological solutions, which will successfully combine all stakeholders' interests. 3. Identify new industrial stakeholders and applications. One of NECTAR's aims is to enlarge the perception about the potential of the use of different thermodynamic studies on specific industrial and technological applications (including environmental and biological/medical). 4. Promoting mobility and multidisciplinary training between the different participants of the Action. 5. Transferring knowledge and promoting industrial awareness. 6. Supporting a high proportion of ECIs, ITCs and assuring gender balance in the COST Action 7. Promoting the sustainability of the network beyond the Action.

Action Deliverables

Deliverable	Month
1. Report of first (kick-off) MC meeting: the main decisions taken will be reported, including the coordination and strategy details of the Action, as well as guidelines related to the participation, open-access policy and associated funds, confidentiality, and intellectual property.	1
2. Action's webpage and general and professional social media: after Action's official start, an official webpage will be setup, reporting all the relevant information, including a mailing list of all participants. Accounts/groups will be also created in general and professional social media to give more visibility to Action and Action's results.	1
3. Report of the first Working Groups (WGs) meetings: the main decisions taken by each WG will be reported, with particular reference to working plans and coordination of WG activities.	3
4. Report of the first Core Group (CG) meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	6
5. First annual WGs Report: WGs achievements, activities and results obtained will be reported, as well as the working plan for the following year.	11
6. Report of the second CG meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	12
7. First MC Progress Report: the main Action's activities and achievements will be reported, as well as the development plan for the following year. Particular attention will be paid to assess Action progress and eventual drawbacks, and taking corrective and incentive measures to ensure its success.	12
8. Report of the second Working Groups (WGs) meetings: the main decisions taken by each WG will be reported, with particular reference to main WGs achievements, working plans and coordination of WG activities.	15
9. Report of the third CG meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	18
10. Proceedings of the first Action's International Conference: the proceedings of the scientific contributions of Conference participants will be published, together with a report of the main conference facts.	21
11. Second annual WGs Reports: WGs achievements, activities and results obtained will be reported by each WG, as well as the working plan for the following year.	23
12. Report of the fourth CG meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	24
13. Second MC Progress Report: the main Action's activities and achievements will be reported, as well as the development plan for the following year. Particular attention will be paid to assess Action progress and eventual drawbacks, and taking corrective and incentive measures to ensure its success.	24
14. Report of the third Working Groups (WGs) meetings: the main decisions taken by each WG will be reported, with particular reference to main WGs achievements, working plans and coordination of WG activities.	27
15. Report of the fifth CG meeting: the main decisions taken will be reported, as well as a	30

detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	
16. Third annual WGs Reports: WGs achievements, activities and results obtained will be reported by each WG, as well as the working plan for the following year.	35
17. Report of the sixth CG meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	36
18. Third MC Progress Report: the main Action's activities and achievements will be reported, as well as the development plan for the following year. Particular attention will be paid to assess Action progress and eventual drawbacks, and taking corrective and incentive measures to ensure its success.	36
19. Report of the fourth and final Working Groups (WGs) meetings: the main decisions taken by each WG will be reported, with particular reference to main WGs achievements, working plans and coordination of WG activities for finalising WGs running work.	39
20. Report of the seventh CG meeting: the main decisions taken will be reported, as well as a detailed description of technical, scientific and general activities of WGs, together with proposals for Action's implementation.	42
21. Proceedings of the second Action's International Conference: the proceedings of the scientific contributions of Conference participants will be published, together with a report of the main conference facts.	45
22. Distribution/Publication of supporting material for Training Schools (TSs): diverse documentation (papers, protocols, methods guidelines) will be compiled and distributed for support of the students activities during the four TSs that would take place in the second semester of each year of the Action.	45
23. WGs Final Reports: WGs achievements, activities and results obtained during the entire Action will be reported by each WG	47
24. Elaboration and publication of workflows, new protocols and guidelines: during the whole Action, at least 8 new protocols and guidelines will be published, concerning the setup of new experimental and data treatment procedures, the use of coupled experimental techniques and related data treatment.	48
25. Publication of high-level scientific research articles/reviews in peer-reviewed scientific journals: during the whole Action, at least 10 papers per year, resulting from the collaboration between Action's participants, will be published on Action's relevant topics.	48
26. Patents: at least three patents on the foreground related to the Action activities are expected in Action's timeframe.	48
27. Software and Databases: in the timeframe of the Action, an updated stability constants (and other thermodynamic parameters) database will be released, as well as new software for data acquisition and elaboration.	48
28. Report of the eight and final CG meeting: the main decisions taken will be reported, as well as a detailed description and summary of technical, scientific and general activities of WGs during the whole Action.	48
29. Final Report: the main achievements of Action will be reported together with a summary of main Action activities. New perspectives will be also reported.	48

Grant Agreement Period

Grant Agreement Period Start Date	01/11/2021	Grant Agreement Period End Date	31/10/2022
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Grant Agreement Period Goals

Number	Grant Agreement Period Goal	MoU Objective(s) it relates to
GAPG 1	Promote and advertise action and action aims	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 3 • Secondary objective 4 • Secondary objective 5 • Secondary objective 6 • Secondary objective 7
GAPG 2	Identify and involve new stakeholders	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 3 • Secondary objective 4 • Secondary objective 5 • Secondary objective 6 • Secondary objective 7
GAPG 3	Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 4	Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 5	Release first guidelines concerning interactions with DNA (WG2, WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 6	Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 7	Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 8	Release of new software for distribution diagrams and stability constants determinations (WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1

		<ul style="list-style-type: none"> • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 9	Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5)	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 5 • Secondary objective 7
GAPG 10	Training of the so-called "Thermodynamic Minds"	<ul style="list-style-type: none"> • Challenge • Secondary objective 1 • Secondary objective 2 • Secondary objective 3 • Secondary objective 4 • Secondary objective 5 • Secondary objective 6 • Secondary objective 7

Work and Budget Plan for the Grant Agreement Period

Work and Budget Plan Summary

A. COST Networking Tools	EUR
(1) Meetings	92,000.00
(2) Training Schools	15,000.00
(3) Short Term Scientific Missions (STSM)	30,000.00
(4) ITC Conference Grant	2,500.00
(5) COST Action Dissemination	5,000.00
(6) Other Expenses Related to Scientific Activities (OERSA)	890.00
B. Total Science Expenditure (sum of (1) to (6))	145,390.00
C. Financial and Scientific Administration and Coordination (FSAC) (max. of 15% of B)	21,808.50
Total Grant (B+C)	167,198.50

Meetings

Overview

Meeting Title	Meeting Type	Dates	Location	ITC	Total Cost(EUR)
WG1 NECTAR Workshop	Working Group Meeting	24/02/2022 - 25/02/2022	tbd (Czech Republic)	Yes	10,000.00
WG3 NECTAR Workshop	Working Group Meeting	24/03/2022 - 25/03/2022	tbd (Slovenia)	Yes	10,000.00
WG4 NECTAR Workshop	Working Group Meeting	26/05/2022 - 27/05/2022	tbd (North Macedonia)	Yes	10,000.00
WG2 Workshop	Working Group Meeting	08/06/2022 - 09/06/2022	tbd (Spain)	No	10,000.00
Dissemination meeting	Dissemination Meeting	14/07/2022 - 15/07/2022	tbd (Albania)	Yes	2,000.00
3rd European NECTAR Conference	Management Committee Meeting, Core Group Meeting, Working Group Meeting, Workshops/Conferences	28/08/2022 - 31/08/2022	tbd (Slovakia)	Yes	50,000.00
				Total	92,000.00

Details

Meeting Type	Working Group Meeting		
Title of the Meeting	WG1 NECTAR Workshop		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5), Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"		
Description	WG1 NECTAR Workshop		
Output(s)	Book of Abstracts, Reports, Publications of results		
Location	tbd (Czech Republic)	ITC	Yes
Start Date	2022-02-24 09:00:00	End Date	2022-02-25 19:00:00
Duration	2 days		
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	20
Average reimbursement(per participant)(EUR)	450.00	Total Reimbursement costs (EUR)	9,000.00
Local Organiser Support (EUR)	1,000.00		
Total cost of the meeting (EUR)	10,000.00		

Meeting Type	Working Group Meeting		
Title of the Meeting	WG3 NECTAR Workshop		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"		
Description	WG3 NECTAR Workshop		
Output(s)	Book of Abstracts, report, Publications		
Location	tbd (Slovenia)	ITC	Yes
Start Date	2022-03-24 09:00:00	End Date	2022-03-25 19:00:00
Duration	2 days		
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	20
Average reimbursement(per participant)(EUR)	450.00	Total Reimbursement costs (EUR)	9,000.00
Local Organiser Support (EUR)	1,000.00		
Total cost of the meeting (EUR)	10,000.00		

Meeting Type	Working Group Meeting		
Title of the Meeting	WG4 NECTAR Workshop		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5), Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5), Release first guidelines concerning interactions with DNA (WG2, WG4, WG5), Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5), Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5), Release of new software for distribution diagrams and stability constants determinations (WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"		
Description	WG4 Workshop		
Output(s)	Book of Abstracts, report, publications		
Location	tbd (North Macedonia)	ITC	Yes
Start Date	2022-05-26 09:00:00	End Date	2022-05-27 19:00:00
Duration	2 days		
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	20
Average reimbursement(per participant)(EUR)	450.00	Total Reimbursement costs (EUR)	9,000.00
Local Organiser Support (EUR)	1,000.00		

Total cost of the meeting (EUR)	10,000.00
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Meeting Type	Working Group Meeting		
Title of the Meeting	WG2 Workshop		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release first guidelines concerning interactions with DNA (WG2, WG4, WG5), Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"		
Description	WG2 Workshop		
Output(s)	Book of Abstracts, Reports, Publications		
Location	tbd (Spain)	ITC	No
Start Date	2022-06-08 09:00:00	End Date	2022-06-09 19:00:00
Duration	2 days		
Number of expected total participants	20	Number of participants to be reimbursed from COST funds	20
Average reimbursement(per participant)(EUR)	450.00	Total Reimbursement costs (EUR)	9,000.00
Local Organiser Support (EUR)	1,000.00		
Total cost of the meeting (EUR)	10,000.00		

Meeting Type	Dissemination Meeting		
Title of the Meeting	Dissemination meeting		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Training of the so-called "Thermodynamic Minds"		
Description	Dissemination meeting		
Output(s)	Report		
Location	tbd (Albania)	ITC	Yes
Start Date	2022-07-14 09:00:00	End Date	2022-07-15 09:00:00
Duration	2 days		
Number of expected total participants	2	Number of participants to be reimbursed from COST funds	2
Average reimbursement(per participant)(EUR)	1,000.00	Total Reimbursement costs (EUR)	2,000.00
Local Organiser Support (EUR)	0.00		
Total cost of the meeting (EUR)	2,000.00		

Meeting Type	Management Committee Meeting, Core Group Meeting, Working Group Meeting, Workshops/Conferences		
Title of the Meeting	3rd European NECTAR Conference		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"		
Description	The 3rd NECTAR Conference will be the annual end-of-GP Action MC/CG/Conference meeting		
Output(s)	Book of Abstracts, Reports, eventual Special issues		
Location	tbd (Slovakia)	ITC	Yes
Start Date	2022-08-28 09:00:00	End Date	2022-08-31 19:00:00
Duration	4 days		
Number of expected total participants	80	Number of participants to be reimbursed from COST funds	80
Average reimbursement(per participant)(EUR)	562.50	Total Reimbursement costs (EUR)	45,000.00
Local Organiser Support (EUR)	5,000.00		
Total cost of the meeting (EUR)	50,000.00		

Training Schools

Overview

Title of the Training School	Dates	Location	ITC	Total Cost(EUR)
2nd NECTAR Training School	10/06/2022 - 12/06/2022	Valencia (Spain)	No	15,000.00
			Total	15,000.00

Details

Title of the Training School	2nd NECTAR Training School		
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Training of the so-called "Thermodynamic Minds"		
Description	Based on the success of the TS of last GP, a new one will be organized, presumably in June for the training of the new thermodynamic minds.		
Output(s)	TS material released to students, training of new Thermodynamic minds, with particular reference to ECIs and ITC members, ensuring gender balance, dissemination		
Location	Valencia (Spain)	ITC	No
Start Date	2022-06-10 09:00:00	End Date	2022-06-12 18:00:00
Number of trainers	10	Number of trainees	30
Number of trainers to be reimbursed	6	Number of trainees to be reimbursed	15
Average trainer Reimbursement(EUR)	500.00	Average reimbursement per trainee(EUR)	500.00
Total trainer Reimbursement(EUR)	3,000.00	Total trainee Grant(EUR)	7,500.00
Local Organiser Support (EUR)	4,500.00		
Total cost of the Training School(EUR)	15,000.00		

Short Term Scientific Missions (STSM)

Number	Average cost per STSM(EUR)	Total cost(EUR)
20	1,500.00	30,000.00
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5), Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5), Release first guidelines concerning interactions with DNA (WG2, WG4, WG5), Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5), Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5), Release of new software for distribution diagrams and stability constants determinations (WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"	
Description	The STSMs will be promoted to reach GP and Action goals. particular attention will be paid to the training of ECIs and ITC members and to ensure gender balance.	
Output(s)	Strengthening of network, development/release of new technologies, training of ECIs, ITC members, ensuring gender balance, dissemination	

ITC Conference Grant

Number	Average cost per Grant(EUR)	Total cost(EUR)
2	1,250.00	2,500.00
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Training of the so-called "Thermodynamic Minds"	
Description	ITC Conference grants will be awarded paying particular attention to ECIs and to ensure gender balance. Conference allowed will only be those clearly of relevance for the Action. ITC Coordinator and CG will evaluate proposals.	
Output(s)	Training of the Thermodynamic minds, presentation of NECTAR main results to a broader audience, preparation of dedicated papers.	

COST Action Dissemination

Title	Type	Publisher/provider	Expected date of Release	Cost(EUR)
Articles on NECTAR results	Publication expenses	TBD	31/10/2022	4,000.00
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5), Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5), Release first guidelines concerning interactions with DNA (WG2, WG4, WG5), Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5), Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5), Release of new software for distribution diagrams and stability constants determinations (WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"			
Description	Support to publication of articles reporting results coming from NECTAR Activities			
Output(s)	publications, dissemination			

Title	Type	Publisher/provider	Expected date of Release	Cost(EUR)
Communication/dissemination material	Brochures, flyers, posters, infographics	TBD	30/06/2022	1,000.00
Grant Period Goal(s) it will address	Promote and advertise action and action aims, Identify and involve new stakeholders, Release the first compilation of data on cations hydrolysis (WG1, WG4, WG5), Release first guidelines concerning Cu(I) issues (WG1, WG4, WG5), Release first guidelines concerning interactions with DNA (WG2, WG4, WG5), Release first guidelines concerning the determination of stability constants by different software (WG2, WG4, WG5), Release first guidelines on interactions in non-aqueous systems (WG3, WG4, WG5), Release of new software for distribution diagrams and stability constants determinations (WG4, WG5), Creation of a NECTAR Q/A solution environment for enterprises and other stakeholders (WG4, WG5), Training of the so-called "Thermodynamic Minds"			
Description	Material to promote the Action			
Output(s)	Communication/dissemination material			

Total Disseminations	5,000.00
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Other Expenses Related to Scientific Activities (OERSA)

Item	Cost(EUR)
Bank transfers expenses	890.00