

RC LACE Council 41st Session
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Report on 2019 Budget and 2020 Budget plan
(by Martina Tudor, RC LACE Project Manager)

1. Introduction

The Member state budget contributions are computed according to Members Gross National Income (GNI) average for previous three years. The GNI is an Economic and growth indicator computed by Atlas method, currently using the currency USD. It is computed by the World Bank and belongs to the World Bank development indicators.

<http://data.worldbank.org/indicator>

The MoU Annex 4 “Rules in the RC LACE budget contribution” explains the rules for contributing to the common RC LACE budget. The computation is based on the level of 156000 EUR.

The contributions of individual countries are computed according to their GNI. If the contribution is less than the ALADIN flat rate, it is corrected to that amount. Consequently, the final budget amount is larger than the base level of 156000 EUR.

The contribution to the organisation of the ALADIN HIRLAM workshop is financed through LACE. This is because it is more convenient for the organizer or HIRLAM to issue a single invoice. Therefore, the contributions from flat rate members is paid through LACE and LACE issues the invoice to Meteo France. In 2020, LACE will issue and invoice to HIRLAM for the organisation of the ALADIN-HIRLAM workshop in Slovenia.

According to the information from the ZAMG accountant, the balance was 200.000 EUR in the reserves at the beginning of 2019 (including several memberships for 2019 that were paid already in 2018).

The budget is used to finance the staff costs, management and networking missions, research stays, meetings and events and miscellaneous costs. The management and networking cover the travel costs of the management group for attendance of LSC and management meetings, ALADIN HIRLAM workshops, EWGLAM-SRNWP meetings and possibly other meetings and events such as the thematic workshops and trainings organized in HIRLAM and ALADIN.

However, part of the budget is also used to finance LTM travel costs to ALADIN HIRLAM workshops, EWGLAM-SRNWP meetings, also for CSSI members from LACE countries. The missions to PAC and PAC-HAC meetings for members from the LACE countries are also financed from the LACE budget. Since 2018, there are two PAC and PAC-HAC meetings per year.

Since 2016, ALADIN finances the position of the Code Architect. The contribution is 2000 EUR per country. The contributions of the LACE countries are covered from the LACE budget.

Since 2018, ALADIN finances the position of the Data Assimilation Coordinator. The contribution is 800 EUR per country. The contributions of the LACE countries are covered from the LACE budget.

2. Relation to the ALADIN budget and Meteo France

According to the ALADIN Assembly decisions, the ALADIN Members support the Code Architect (2000 EUR per Member) and Data Assimilation Coordinator (800 EUR per Member). The Meteo France (MF) contributions for these positions are paid through the LACE budget.

Stays of researches from LACE countries in non-LACE non-MF countries and stays of non-LACE non-MF researches in LACE countries are financed through ALADIN FR-LACE budget that is in fact financed by MF.

The contribution of the Members to the organisation of the ALADIN HIRLAM Workshop is 1/16 of 6000 EUR per Member. MF transfers the MF and flat-rate ALADIN partners contribution to the LACE account.

LACE issues the invoice to MF for these expenses and covers the related invoices.

The total support for the scientific ALADIN FR-LACE stays in 2019 is 13850 EUR. Most of the stays are either already executed or planned to be executed before the end of

the 2019, while two stays have been postponed for 2020. The invoice to MF for 2019 also included MF support for the Code Architect and the Data Assimilation coordinator (2000 EUR and 800 EUR) and the contribution for the organisation of ALADIN-HIRLAM workshop in Madrid. The invoice for the organisation has been issued by the organisers and paid on 8th May 2019.

The total support for the scientific ALADIN FR-LACE stays in 2020 is 13850 EUR. The invoice to MF for 2019 shall also include the MF support for the Code Architect and the Data Assimilation coordinator (2000 EUR and 800 EUR) and the support for the organisation of the ALADIN HIRLAM Workshop of 3375 EUR.

3. The 2018 Budget Execution

The planned budget for 2018 is 199125 EUR (as approved by the LACE Council in 2018). Out of that sum, 52000 EUR is allocated for the staff costs, 22500 for Management and networking events (2 LSCs, AHWS, EWGLAM-SRNWP, management meetings), 73200 EUR for research stays, 7000 EUR for meetings and events and 4000 in miscellaneous. Also including 40425 EUR for the ALADIN activities: LTM expenses for attending ALADIN HIRLAM Workshop and EWGLAM-SRNWP meeting, CSSI members from LACE countries attending ALADIN HIRLAM Workshop and EWGLAM-SRNWP meeting and PAC members from LACE countries attending PAC and PAC-HAC meetings.

The best current estimate for the expenses until the end of 2019 is 159605.12 EUR (not including the MF-LACE stays and MF contributions). The estimate is based on the assumption that all the stays and actions planned until the end of the year are executed (no additional cancellations). This is about 6544 EUR less than the 2019 Budget contributions from the Members and the difference will be accumulated in the reserves. However, this is also about 40 000 EUR less than the original Budget plan approved on the 2018 LACE Council. This is because many research stays and other actions were postponed to 2020 due to various reasons.

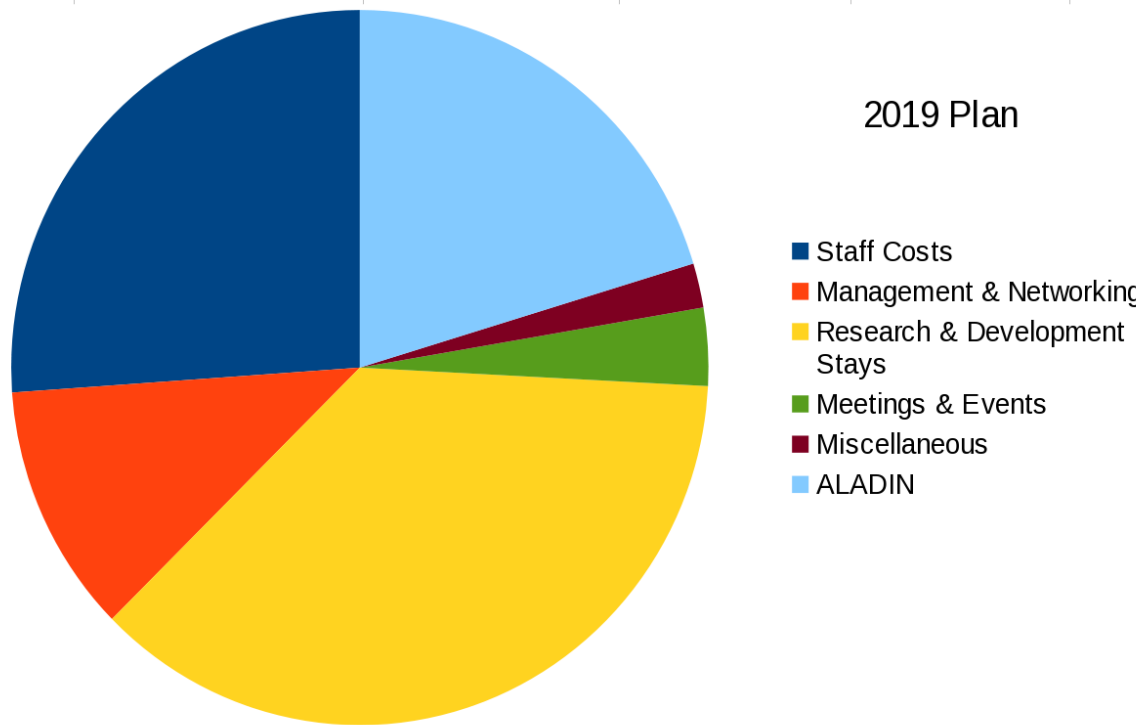


Figure 1. The planned budget for 2019. The full circle corresponds to the 199125 EUR budget proposal (approved by the LACE Council in 2019).

Table 1. summary of the budget expenses per management group members and areas (does not include specific ALADIN expenses of LTMs, PAC and CSSI members).

	PM	AL Dyn	AL Phy	AL DA	AL EPS	DM	ASC	Total
Staff	10400	7800	1950	7800	7800	5200	5200	46150
M&N	6951*	2829	543	3207	1661	1980	2327	19500
R&D	5681*	7320	11347	10369	12200	1220	4880	53000
M&E		0	0			1020		1020
ASR	406	0	0					406
Total	20526	17113	24246	27290	23544	10640	13080	133691

* contains expenses due to additional meetings, the training has been moved to Toulouse so much more expensive than planned.

Total 6.5 person months of stays were cancelled (out of 29.5 person months planned for 2019) or postponed for the next year, these include stays and/or actions in all Areas (Dynamics, Physics, Data Assimilation and Predictability). Also, one event, the MUSC training and working days, has been postponed to 2020.

Cancelled or postponed actions:

- 1 month (out of 2) for a dynamics stay in CHMI – due to the participant being involved in other actions (ECMWF stay, supercomputer procurement).
- 1 month physics stay in MF cancelled due to unavailability of researcher (left team).
- 1.5 months stay equivalent reserved for the single column model MUCS Working Days is postponed for 2020 due to small number of MUSC experts and their unavailability (considering joint with HIRLAM in Prague).
- 2 month stay in ensemble forecasting postponed to 2020 due to unavailability of a researcher due to family reasons.
- 1 month stay in the data assimilation cancelled due to unavailability of the researcher (left team), one postponed to the next year.

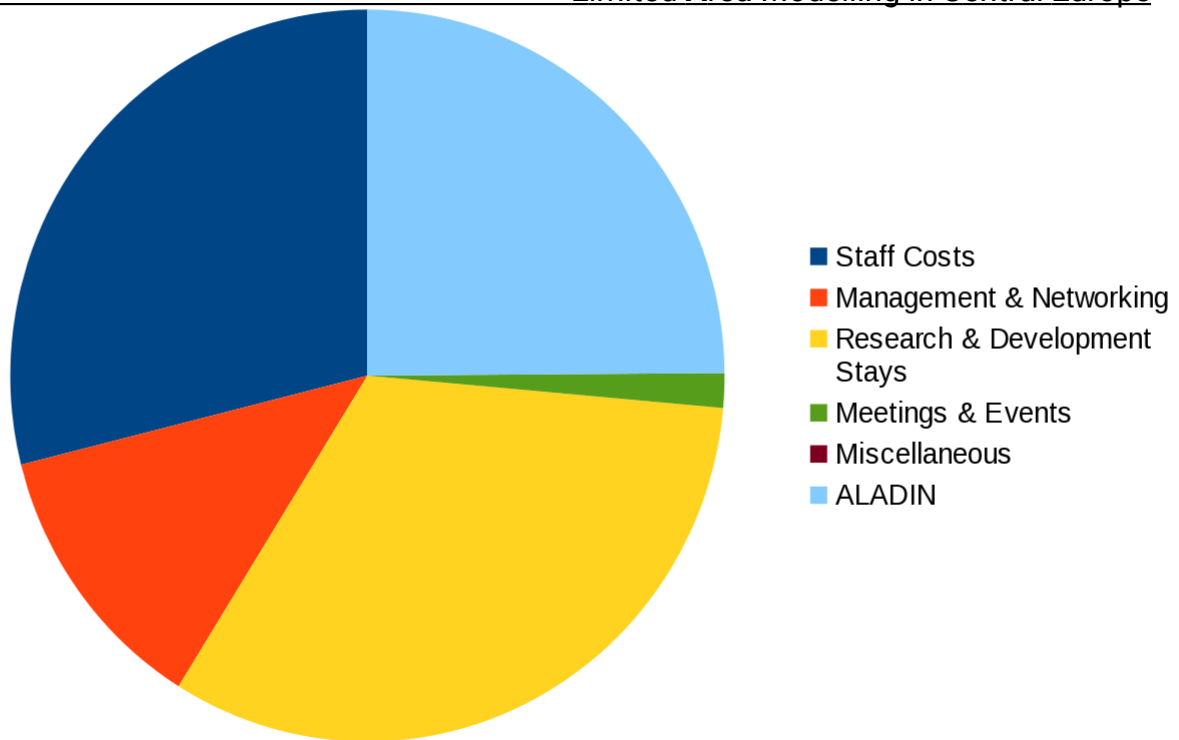


Figure 2. The executed (with some estimates until the end of the year) budget for 2019.

In total, 21 person months of stays is to be realized before the end of 2018 (out of 29.5 planned).

The meetings and events budget execution is lower than the planned budget since there were few actions and there were no expenses in that part in most areas. There were 2 PAC and PAC-HAC meetings in 2019, but there was a number of the Common Consortium Working Group additional meetings and an additional attendance at HIRLAM Council in Lisbon. There are also 2 PAC and PAC-HAC meetings planned for 2020. The number of additional meetings is hard to forecast, but the one that is currently known is accounted for in the budget.

Pending reports from 2017

There were 6 stays realized in 2017 that were still pending reports in April 2018. After several e-mail exchanges, only one stay is still pending report. That particular stay was realized in the beginning of 2017 and the researcher left her national service for ECMWF. It is proposed not to wait for that report.

The total 2019 RC LACE budget contributions for 2019 are 166,148.88 EUR. The proposed budget for 2019 approved by Council was 199125 EUR. The overspending was to be covered from the budget reserves. But we had underspending and it will contribute to the budget reserves.

4. The 2020 Budget contributions

The computation has been made in September 2019 for the 2020 contributions and distributed to the LSC representatives (these were based on the ALADIN flat rate 12000 EUR, later corrected, see below).

The countries have to contribute to the budget at least the amount of the ALADIN flat rate. If a relative contribution of a country is less than the ALADIN flat rate, the contribution is corrected to be equal to the ALADIN flat rate. The proposal for the 2020 ALADIN flat rate is **12250 EUR** (corrected from 12000 EUR contribution for 2019 according to the average inflation in the EURO zone).

The total 2019 RC LACE budget contributions for 2019 are 166,148.88 EUR. The proposed budget for 2019 approved by Council was 199125 EUR. The overspending was to be covered from the budget reserves. But we had underspending and it will contribute to the budget reserves.

Therefore, the contributions of Croatia and Slovenia based on the GNI are below the ALADIN flat rate and are therefore corrected to the (proposed) ALADIN flat rate. **The total proposed 2020 RC LACE budget after this correction is 166715.45 EUR.**

Table 2. The 2020 budget contributions (including proposed ALADIN flat rate correction).

Country	Average GNI	Percentage	Contribution	Corr. Contrib.
Austria	404160689388	36.68	55667.05	55667.05
Croatia	52346073469	4.63	7225.37	12250.00
Czech Republic	190380324681	17.63	27501.10	27501.10
Hungary	125351274797	11.67	18205.87	18205.87
Romania	190487736769	18.01	28090.92	28090.92
Slovak Republic	92679919524	8.17	12750.50	12750.50
Slovenia	45393013648	4.20	6559.18	12250.00
Total	1100799032278	100.00	156000.00	166715.45

5. The 2020 budget plan

Total 29 months of research stays are planned, including a training action (see below). At the LSC meeting, several cancellations of the research stays have been reported. But, more importantly, there were subjects that were not covered by manpower. There are several subjects suitable for newcomers. There is need for more manpower and more skilled manpower to do the work more efficiently.

The amount for the management and networking expenses for 2020 is slightly increased with respect to 2019 due to the additional meetings, need for Data Manager and ALADIN System Coordinator to participate in several meetings related to their work.

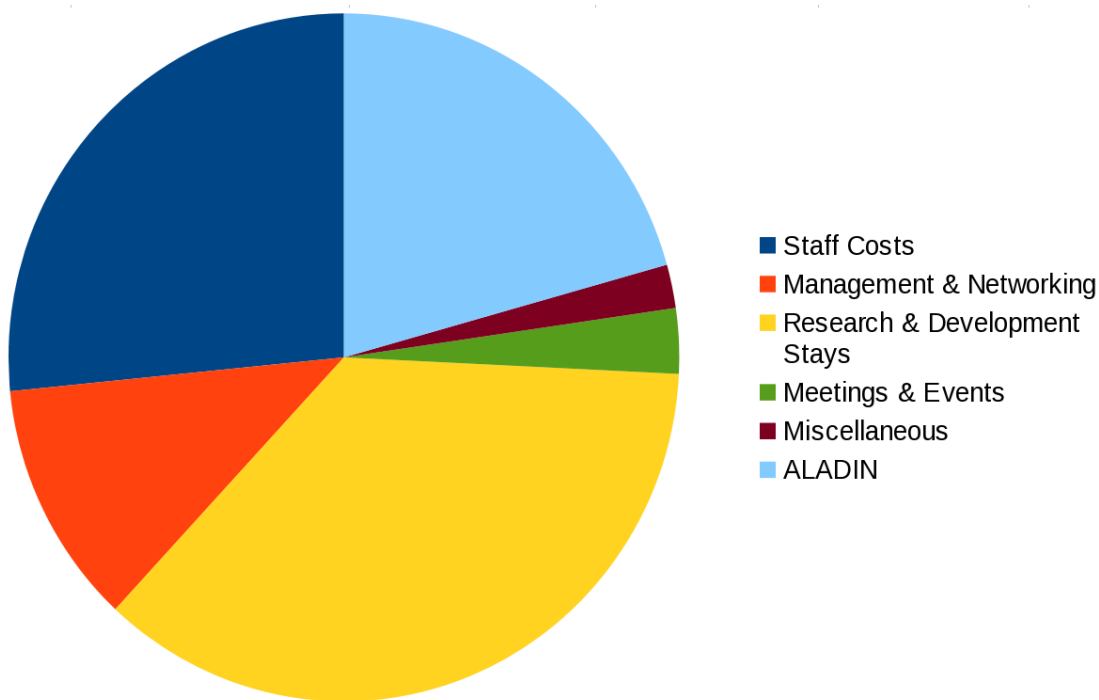


Figure 3. The planned budget for 2020.

The planned staff costs are the same as for the previous years. Management and networking expenses are reduced in total. The proposed number of research stays is also reduced, as well as expenses for meetings and events and miscellaneous. The only increase in planned expenses is in fact the ALADIN item due to two PAC and PAC-HAC meetings per year. The radar action is supported with 3 three week stays.

There are several suggestions and requests to organize trainings. Therefore, a small portion of the budget is allocated for each of the proposed trainings. The aim is to finance one participant per LACE country and assumes the training actually takes place in one LACE country. Since the trainings are aimed to take one working week (full 5 days) this was planned as 6 person weeks per training. The trainings are explained below in more details. A survey of interest has been done for the different trainings and most of the LACE countries answered positively for the trainings (however there are no newcomers currently available in few and at the moment of writing these lines no answer from one member).

6. Planned actions/trainings for 2019

Data assimilation working days are now held regularly every year combined with the LSC meeting in the autumn. These meetings are useful hubs for information exchange between the LACE member services and especially important for special actions, such as inclusion of new measurement data types in the data assimilation, such as the radar data, ModeS and GNSS data. The assigned budget is under data assimilation area.

The single column model MUSC Working Days, intended as a common training and development action, equivalent of one month research stay, is postponed for 2019. Due to small number of MUSC experts and their unavailability, it was not possible to organize such exercise in 2018. There is a number of LACE researches interested in using this application in their work. Therefore, the MUSC training will be held in Budapest (OMSZ volunteered to organize this) in cooperation with MUSC experts from MF, ALADIN and HIRLAM and also include trainees from outside LACE. The assigned budget is under physics area.

Table 3. Summary of the planned budget expenses per management group members and areas (does not include specific ALADIN expenses of LTMS, PAC and CSSI members) for 2019. The scientific stays in physics and data assimilation areas are larger than other due to planned actions and trainings. Data assimilation also includes 3 months of stays related to the radar action.

	PM	AL Dyn	AL Phy	AL DA	AL EPS	DM	ASC	Total
Staff	10400	7800	7800	7800	7800	5200	5200	52000
M&N	4500	3000	3000	3000	3000	3000	3000	22500
R&D	3660	9760	18300	18300	14640	1220	4880	70760
M&E	1000	1000	1000	1000	1000	1000	1000	7000
Misc.	4000							4000
Total	20526	21560	30100	30100	26440	10420	14080	154760

The training on the data assimilation code aspects was requested by several already experienced researches and developers. Recent code developments, mostly related to OOPS, have hampered the release of the new export version of the model code. Most developers have difficulties putting their code (developments) in the new model version in order to prepare their code for phasing to enter the common code. This is also putting additional burden to the ALADIN System Coordinator. New structures in the forecast model component are also pre-requisite for the understanding of how the rest of the code, particularly data assimilation and exchange with surface. Therefore, a training on the forecast model code aspects will be organized in cooperation with Meteo France. The date is not set yet. However, the location will most certainly be Meteo France. The date depends on the availability of teachers (who are also involved in phasing) and the place will be set then according to availability of classroom. The assigned budget is under Project Manager.

Summary

The planned budget for 2020 assumes overspending. These overspending should be covered from the budget reserves. However, the review of practices from the previous

years show that the planned spending was never achieved due to cancelled research stays, considerably lower amounts (on average) spent for management and networking) and very little spending on meetings and events.

The total proposed budget for 2020 is higher than the budget that was approved for 2020 and so is the planned overspending. Note, however that the increase in the budget is mainly to the postponed stays and that there is a large reserve in the project. The proposed stays include developments of common operational applications, such as LAEF and OPLACE, phasing contribution, assimilation of new measurement types, with special emphasis on the radar data assimilation, but not neglecting ModeS and GNSS data, crucial developments in model dynamics and physics.

So far, in the previous years, the budget execution was below the planned amount, especially in the meetings and events section, as well as in the management and networking.