



Project no. 248992

Project acronym: NEUNEU

Project title: Artificial Wet Neuronal Networks from Compartmentalised
Excitable Chemical Media

Small or medium-scale focused research project (STREP)

Deliverable 5.1 - Periodic Management report

Period covered: from 1.2.2010 to 31.1.2011 Date of preparation: 18.9.2009

Start date of project: 1.2.2010 Duration: 36 months

Project coordinator name: Dr. Peter Dittrich
Project coordinator organisation name: Friedrich Schiller University Jena

Periodic Management Report

The Deliverable D5.1: Periodic Management Report is identical to the Project Periodic Report, which was submitted in independent documents.

This report describes the management actions and the resources that were spent so far by the project on page 3

The numbering scheme is taken from the "Guidance Notes on Project Reporting".

3.2.3 Project Management and 3.4 Explanation of the use of the Resources

3.2.3 Project Management during the period

In the following, we summarize management of the consortium activities during the period.

Consortium management tasks and achievements;

- Consortium Agreement negotiated and signed by all beneficiaries.
- Financial coordination as planned
- Internal communication infrastructure installed:
 - Wiki for internal communication, especially reporting
 - internal file repository SVN
 - public Website neu-n.eu (See Deliverable D6.1) with CM that allows each beneficiary to edit the website's contents
 - one login/passwd for all web services
- Coordination of reporting
- Communication with EC, forward collated reports

Publications in the popular science media:

- BBC News, "Chemical computer that mimics neurons to be created" by J. Palmer, 11 January 2010, <http://news.bbc.co.uk/2/hi/8452196.stm>
- Computing Now, March, 2010, "Researchers Take Promising Approach to Chemical Computing" by G. Lawton, <http://www.computer.org/portal/web/computingnow/archive/news055>
- Article in "Naturwissenschaftliche Rundschau" Nr 7, 2010 - a german-language popular science magazine
- Heise News Ticker "Research on Chemical Computer", Forscher arbeiten am chemischen Computer" (in German) <http://www.heise.de/newsticker/meldung/Forscher-arbeiten-am-chemischen-Computer-902434.html>
- ERCIM News <http://ercim-news.ercim.eu/> article submitted, reporting on NEUNEU activities, submitted for special theme "Unconventional Computing Paradigms"
- Poster at the Gordon Conference Oscillations and Dynamic Instabilities in Chemical Systems. Barga, Italy, July 04-09, 2010 "BELOUSOV - ZHABOTINSKY REACTION IN LIPID COVERED DROPLETS" - Jan Szymański, Yasuhiro Igarashi, Jerzy Górecki, Joanna Natalia Górecka, Klaus-Peter Zauner, Maurits de Planque
- Seminar at the Non-Standard Computation Group in York, England. November 28th, 2010 "Information processing with chemical reactions" - Jerzy Górecki

Problems which have occurred and how they were solved or envisaged solutions;

- Late employment of SOTON researchers led to a delay in producing Deliverable D1.1, see Section 3.2 “Objectives and Work Progress for Details”.
- Late employment of JENA researcher has not led to a delay in producing Deliverables in the first project year, but might lead to a delay in the second project year.
Envisage solution: We will spend more PMs in the second and third year than originally planned in order to catch up.

List of project meetings, dates and venues;

- 28th of April 2010: Kickoff Meeting in Jena
- 28th - 30th of September 2010: Project Meeting in Southampton
- 25th of November 2010: local scientific exchange between UWE and SOTON in Southampton
- 26th of January 2011: local scientific exchange between UWE and SOTON in Bristol
- 12th - 18th March 2011: local scientific exchange between ICFPAN and JENA in Warsaw

Project planning and status;

- Status: With respect to the PMs spent, the project progresses as planned.
- Due to a delay in employment, D1.1 is delayed and rescheduled for the second year. Nevertheless we made good progress in D1.1 as document in the attached report for D1.1.

Impact of possible deviations from the planned milestones and deliverables, if any;

- The Description of Milestone MS1 was slightly altered to incorporate the new findings of period 1. This seems not to influence the plan of the future actions for the project.

Other Co-ordination activities

- We are participating in the coordination support action COBRA www.cobra-project.eu
- Within the context of COBRA, a workshop is planned at ECAL2011 www.ecal11.org
- Invited satellite workshop on “On-silico ChemIT meets Wet ChemIT” planned for CMC12, Paris, cmc12.lacl.fr

No changes to the legal status of the beneficiaries occurred.

Development of the Project website, if applicable;

We regularly updated the public website, adding current events, project media, software and news about the project. (See Deliverable 6.1)

3.4 Explanation of the use of the resources

Table 3.1 Personnel, subcontracting and other major cost items for Beneficiary 1: JENA

Work Package	Item Description	Amount in € with 2 decimals	Explanations
3,5,6	Personnel direct costs	37,636.01€	9 person months for 2 PhD students, half positions
1 - 6	Computer Hardware	2,064.00 €	4 Workstations, 1 Laptop, 2 Displays
5	Organization, kick off meeting	705.00 €	
1 - 6	Travel	3,596.00 €	Meetings (Warsaw, Southampton) Workshops (San Sebastian) & Summer School (Barcelona)
	Remaining direct costs		
	Indirect costs	26,400.00 €	
TOTAL		70,401.00 €	

Table 3.2 Personnel, subcontracting and other major cost items for Beneficiary 2: SOTON

Work Package	Item Description	Amount in € with 2 decimals	Explanations
1,2,4,6	Personnel costs	49925.16 €	1 Postdoc (Fabrication) 7 months, 1 Postdoc (Chemistry) 1.53 months, 4 senior staff (3.67months)
1	Stereozoom Microscope Zeiss Discovery V8	11012.18 €	Imaging of droplet generation, droplet interfacing, and droplet excitation
1	Prosilica GX3300C Camera	5835.78 €	Imaging of droplet generation, droplet interfacing, and droplet excitation

1	2 x Harvard Pump 11 Plus Advanced	4075.84 €	Supply oil phase and aqueous phase to microfluidic chips
1	Consumables	2804.06 €	Chemical supplies, components for fluidics (e.g. valves), rapid prototype resin, mask printing
	Travel	546.98 €	Travel to NEUNEU Meetings in Jena, New Forest, and Bristol
	Indirect costs	44361.89 €	
TOTAL		118561.88 €	At 0.8536 £ = 1 € (Rate of Feb 1st 2011)

Table 3.3 Personnel, subcontracting and other major cost items for Beneficiary 3: ICFPAN

Work Package	Item Description	Amount in € with 2 decimals	Explanations
1 - 6	Computer Hardware	11,418.57 €	Nvidia TESLA S2050 numeric accelerator and controlling workstation
1	Personnel direct costs	5,406.25 €	10 person months for 2 PhD students

1 - 6	Conferences & Travel	5,607.94 €	The Gordon Conference Oscillations and Dynamic Instabilities in Chemical Systems. Barga, Italy, July 04-09, 2010 , two participants (Jerzy Gorecki and Jan Szymanski), participation in NEUNEU Meetings (Jena - Jerzy Gorecki and Jan Szymanski, Southampton - Jerzy Gorecki, Yasuhiro Igarashi and Jan Szymanski), UC 2010 Tokyo, Jerzy Gorecki (part of participation costs)
1 - 6	Consumables	1,385.28 €	Chemicals, laboratory glass and small parts, computer disks, toners
1	Remaining direct costs	26.37 €	poster printing
	Indirect costs	14,312.65 €	
TOTAL		38,167.06 €	The actual costs are in polish Zlotys, the rate of Feb, 1st 2011 was used: 1 EUR = 3.9138 PLN

Table 3.4 Personnel, subcontracting and other major cost items for Beneficiary 4: UWE

Work Package	Item Description	Amount in € with 2 decimals	Explanations
1,2,3,4	Personnel direct costs	82,609.95	17.8 person months for 1 full-time RA and 3 researchers part-time on project
	Computer Hardware	1,329.64	PC for simulation

	Travel	1,182.95	Meetings and Workshops: Jena Kickoff Meeting, Project Meeting Southampton, Collaboration Meeting Southampton
	Indirect costs	51,072.93	
	TOTAL:	136,194.47	