Technology Transfer in Computing Systems

D4.2: Periodic Project Report 2

Project no.:	609491
Funding scheme:	Collaborative project
Start date of the project:	1st September 2013
Duration:	36 months
Work programme topic:	FP7-ICT-2013-10
Deliverable type:	Report
Deliverable reference number:	ICT-609491 / D4.2
WP and tasks contributing:	WP 4 / all
Due date:	28/02/2015
Actual submission date:	28/02/2015
Responsible Organization:	RWTH
Dissemination Level:	Public
Revision:	1.0

PROJECT PERIODIC REPORT

Grant Agreement number:	609491
Project acronym:	TETRACOM
Project title:	Technology Transfer in Computing Systems
Funding Scheme:	Coordination and Support Action FP7-ICT-2013-10 ICT-2013.3.4: Advanced computing, embedded and control systems
Date of latest version of Annex I against which the assessment will be made:	29.07.14
Periodic report:	2
Period covered:	**from** 01.09. 2013 **to** 28.02. 2015

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Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate):
  - X has fully achieved its objectives and technical goals for the period;
  - ☐ has achieved most of its objectives and technical goals for the period with relatively minor deviations.
  - ☐ has failed to achieve critical objectives and/or is not at all on schedule.
- The public website, if applicable
  - X is up to date
  - ☐ is not up to date
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 3.4) and if applicable with the certificate on financial statement.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 3.2.3 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: Prof. Rainer Leupers

Date: 28.2. 2015

For most of the projects, the signature of this declaration could be done directly via the IT reporting tool through an adapted IT mechanism and in that case, no signed paper form needs to be sent.

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Publishable Summary

The mission of the TETRACOM Coordination Action is to boost European academia-to-industry technology transfer (TT) in all domains of Computing Systems. While many other European and national initiatives focus on training of entrepreneurs and support for start-up companies, the key differentiator of TETRACOM is a novel instrument called **Technology Transfer Project (TTP)**. TTPs help to lower the barrier for researchers to make the first steps towards commercialization of their research results. TTPs are designed to provide incentives for TT at small to medium scale via partial funding of dedicated, well-defined, and short term academia-industry collaborations that bring concrete R&D results into industrial use. This is implemented via competitive Expressions-of-Interest (EoI) calls for TTPs, whose coordination, prioritization, evaluation, and management are the major actions of TETRACOM. It is expected to fund up to 50 TTPs. The TTP activities are complemented by **Technology Transfer Infrastructures (TTIs)** that provide training, service, and dissemination actions. These are designed to encourage a larger fraction of the R&D community to engage in TTPs, possibly even for the first time. Altogether, TETRACOM is conceived as the major pilot project of its kind in the area of Computing Systems, acting as a TT catalyst for the mutual benefit of academia and industry. The project´s primary success metrics are the number and value of coordinated TTPs as well as the amount of newly introduced European TT actors. It is expected to acquire around more than 20 new contractors over the project duration. TETRACOM complements and actually precedes the use of existing financial instruments such as venture capital or business angels based funding.

The major objectives and achievements for the first reporting periods of TETRACOM (Sep 2013 – Feb 2015) were the following:

- *Establishing project management infrastructures*: The TETRACOM Steering Committee (SC) met 12 times in order to discuss upcoming tasks, to agree on detailed procedures for TTP calls, to appoint TTP proposal reviewers and the Industrial Advisory Board, plan for PR activities, and to resolve any other organizational issues. A Consortium Agreement has been closed, and the required administrative staff has been assigned.

- *Making TETRACOM known to the relevant communities of potential Technology Transfer Project (TTP) proposers*: Via an ongoing series of messages to large mailing lists (incl. HiPEAC), conference presentations, social media, and many personal communications, the project and its offerings to the community have been widely advertised. The great acceptance of the first TTI events as well as a high response to the first TTP calls indicate that TETRACOM is now well-known in the EU, and clearly also beyond the HiPEAC community.

- *Kicking off a set of initial TTPs*: Seven out of eight TETRACOM partners have started in total nine initial TTPs with various company partners, while others are currently in the planning phase.

- *Setting up various Technology Transfer Infrastructures (TTIs)*: The TETRACOM website is online and serves as a major infrastructure for TTP calls and review management. Eight well-attended technology transfer events with expert speakers have been organized at major conferences and international workshops.

- *Meeting with the Industrial Advisory Board (IAB*): Three management-level industry representatives currently serve on TETRACOM´s IAB. The first meeting of IAB and SC took place in Sep 2014 in Brussels. The general feedback from the industry perspective was extremely encouraging, and several ideas improvements in TETRACOM´s procedures were suggested and implemented.

- *Conducting the first two rounds of public calls for TTP proposals*: The first TTP call round has been completed with March 31 as submission deadline. A total of 31 TTP proposals were submitted, which is to be considered as a true success, given that the project has been relatively new and conceptually experimental. After independent evaluation, 9 TTP proposals were accepted by the TETRACOM SC and were started on Sep 1, 2014. 8 new contractors were formally added to the consortium. The second TTP call received 43 submissions. Another 13 new TTPs were granted in this round and are now being added to the DoW. They will kick off on May 1, 2015.

List of Acronyms

DoW	Description of Work
IAB	Industrial Advisory Board
EoI	Expression of Interest
NDA	Non-Disclosure Agreement
PO	Project Officer
SC	Steering Committee
TTP	Technology Transfer Project
TTI	Technology Transfer Infrastructures

List of Partners (new TTP partners in *italics*)

RWTH	Rheinisch-Westfälische Technische Hochschule Aachen
UEDIN	University of Edinburgh
UGENT	Ghent University
INRIA	Institut National de Recherche en Informatique et en Automatique
UPISA	University of Pisa
TUD	Delft University of Technology
TUT	Tampere University of Technology
IMC	Imperial College London
UL	*Univerza V Ljubljani*
TUE	*Technische Universiteit Eindhoven*
UPC	*Universitat Politecnica de Catalunya*

USalento	*Universita del Salento*
LJMU	*Liverpool John Moores University*
UNIKL	*Technische Universität Kaiserslautern*
TUB	*Technische Universitaet Berlin*
CTUNING	*CTUNING Foundation*

Project objectives for the period

TETRACOM is breaking new grounds in direct, bilateral European academia-industry technology transfer (TT) in the domain of Computing Systems. This concept is complementary to existing start-up support initiatives. The project is organized along two major activity lines:

Technology Transfer Projects (TTPs): The concept of TTPs originates from typical bilateral academia-industry collaboration scenarios in the domain of Computing Systems: A university U has developed a certain technology or IP for solving a technical problem, often within a publicly funded project. Some company C has a similar problem in their current R&D activities and gets interested in U´s general solution approach. The requirements are analysed in detail, and as a result U and C may sign a bilateral R&D or license agreement to make the technology available to C under certain conditions and for an appropriate compensation. In most cases this requires U to perform additional services, usually under tight timing constraints, around the licensed technology to actually bridge the gap between the original prototype and a working solution for C, and in order to provide the required technology support and training. TETRACOM calls for, coordinates, and sponsors TTPs of this type according to well-defined rules.

Technology Transfer Infrastructures (TTIs): As support activities, several dedicated TTIs are maintained, intended to help in setting up a new academia-industry "TT marketplace" and to encourage first-time actors to get engaged in TTPs. TETRACOM currently implements the following TTIs: TT workshops, consultation services, Website, Newsletter, and social media.

TETRACOM is structured into four work packages:

- **WP 1: TTP EoI calls management (Leader: UEDIN)**
- **WP 2: TTI organization and dissemination (Leader: UGENT)**
- **WP 3: Individual TTPs (Leader: RWTH)**
- **WP 4: Project management (Leader: RWTH)**

This document describes the activities and results of TETRACOM during project months 1-18. **Please note that the results of the initial project phase (months 1-8) were already described in the 1st Periodic Project Report (see Deliverable D4.1) and were discussed in the 1st review meeting (May 2014, Barcelona). They are partially repeated in this report for sake of document consistency.**

The major objective of the present reporting period (months 9-18) has been the continuation of the above work packages, including some key events like completion of the 1st call for TTPs and inclusion of the corresponding new consortium members, the 2nd call for TTPs and the 1st Industrial Advisory Board (IAB) meeting, and to identify some corrective actions based on the initial project experiences. These are further explained below and are part of the present DoW or to be included in the next DoW update, respectively.

Summary of recommendations of the previous technical review meetings

The major recommendations from the 1st review meeting (May 2014, Barcelona) were as follows:

1. **Put more emphasis on measuring results than on measuring effort**. The review committee observed that in several deliverables the "amount of effort spent" is used as a Key Performance Indicator (KPI), whereas the "impact achieved" is more important and more relevant to be tracked. Example: the consortium reports on the press release but hardly focuses on the press coverage it received.
2. **Institutionalize the learning**. TETRACOM is a pilot project. It should be considered a pipe cleaner to find the optimal process, rules and procedures to enable a European best practice in academia-to-industry technology transfer. This implies that the three calls of TETRACOM should be used as a learning exercise towards building this best practice. A formal methodology to capture and document this learning should hence be developed. The resulting procedure should be part of the White Paper.
3. **Develop mechanisms to assess the impact of individual Technology Transfer Projects** (TTPs). Next to the importance of measuring the overall impact of TETRACOM itself, it is important to assess the industrial impact achieved with every TTP. Knowing that the industrial recipient of the transferred technology will not become a member of the consortium and appreciating the confidentiality of business strategy and product details, it can prove hard to gather this information. The review committee hence recommends to the consortium to work out a template form, as well as a filled-out example, and, at the time of communicating the TTP proposal acceptance, to clearly convey the message to industry that the consortium expects this form to be filled-out by the end of the transfer project.
4. **Consider excluding the core consortium from the open TTP calls**.

The TETRACOM Steering Committee (SC) discussed these recommendations during its regular meetings and also within the IAB meeting in Sep. 2014. The major conclusions and actions were as follows:

1. **Put more emphasis on measuring results than on measuring effort**. Concerning press coverage measurement, we have put in place analytics to track the usage of the website, and we are now monitoring the TETRACOM coverage on the internet. More details are to be found in deliverable D2.2. The SC believes that TETRACOM´s PR channels are very effective: According to an informal survey conducted among the TTP proposers in call 1, the large majority heard about TETRACOM opportunities via the mailing lists, or TT workshops. The number of TTP proposals went up by 30% from call 1 to call 2. Concerning systematic measurement of TTP results, see point 3.

2. **Institutionalize the learning**. During the conclusion of TTP call 1, the TETRACOM consortium has already observed some issues around the "theoretical" TTP concept. This relates e.g. to the proposal evaluation procedure, misunderstandings about TTP call text details, and synchronization issues in kicking off all new TTPs simultaneously. Naturally all (positive and negative) lessons learned over the three TTP calls will be documented in the final White Paper, whose major purpose is to capture everything learned from TETRACOM.
3. **Develop mechanisms to assess the impact of individual Technology Transfer Projects.** A comprehensive TTP impact questionnaire (see Annex E) has been designed and has been distributed to all TTP partners. The questionnaires have to be filled and returned along with the TTP abstracts (Deliverables 3.x) due end the end of each TTP. Moreover, in an attempt towards a more systematic impact scoring, the technology readiness level (TRL) has been included as another evaluation criterion in the TTP call text.
4. **Consider excluding the core consortium from the open TTP calls**. This has been implemented immediately and is now fixed in the DoW.

Work Progress and Achievements during the Period

Work Package 1: TTP EoI Calls Management

Task 1.1: Calls for TTP EoI´s

Duration: M3-M24
Lead contractor: TUT
Further contributors: all

Three calls for TTP EoIs ("Expressions of Interest") will be prepared by TUT and UEDIN and be published using communication media like mailing lists, web sites, and leaflets. Each call denotes a particular project phase and thus constitutes one of the milestones MC1-MC3. The other contractors will help in the definition and distribution of EoI calls.

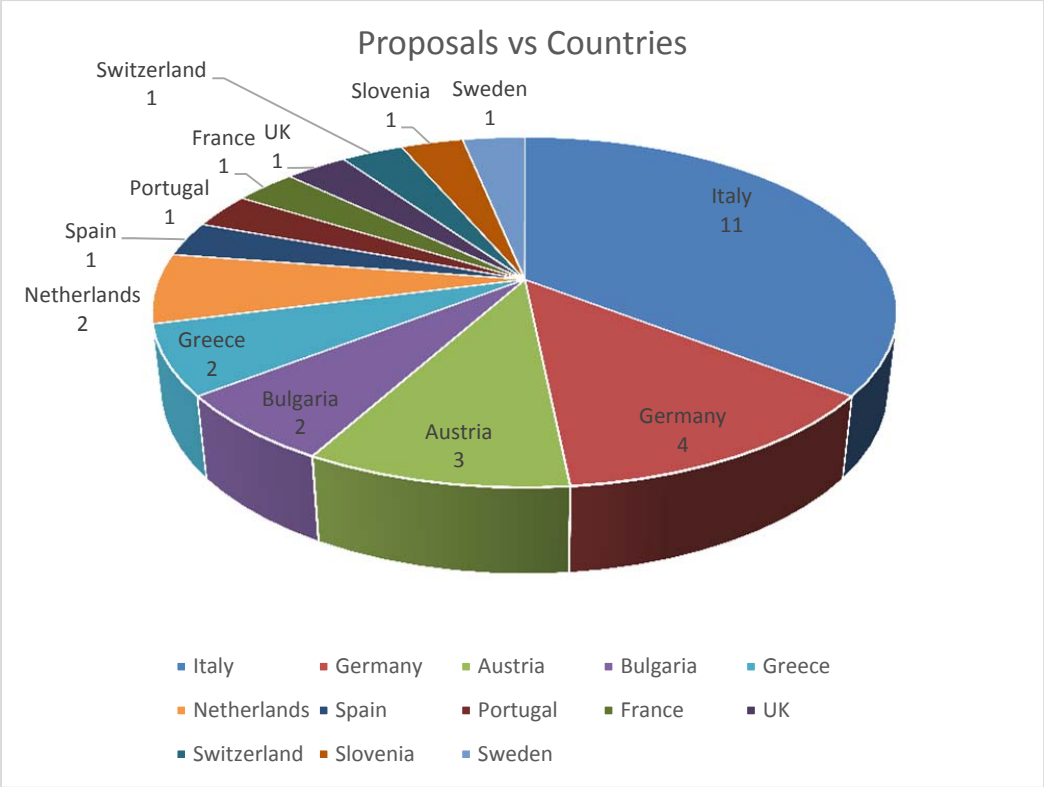
Months 1-8

After careful drafting by the Steering Committee (SC) in collaboration with the PO, the first call for TTP proposals (the original term "Expression of Interest" is no longer used here for sake of clarity) has been published on Feb 14, 2014 with the submission deadline set to Mar 31. The following media and channels have been used to announce the call as widely as possible in the computing and embedded systems community:

- HiPEAC mailing list (approx. 5400 members)
- EMSIG/ARTIST mailing list
- SoCInfo mailing list (approx. 6000 members)
- TETRACOM website (see Task 2.3)
- TETRACOM electronic newsletter
- TETRACOM Facebook and Twitter accounts (see D2.1)
- Public presentations (see Task 2.1)

A total of **31 TTP proposals** have been submitted in TTP call 1 by the deadline. For this purpose, an online submission facility has been implemented at http://www.tetracom.eu. Some submission statistics are summarized below. The actual proposals are (confidentially) available on request.

- The academic proposers originate from 13 different European countries (see chart below), 12 of which are EU countries.
- The company partners are distributed over 10 countries, 9 of which are EU countries.
- 14 proposals involve SME company partners.
- 3 proposals come from new EU member states (Bulgaria and Slovenia).
- 28 proposals come from outside TETRACOM´s founding consortium.
- The requested TTP funding from TETRACOM is between 15k and 78k EUR, with an average of approx. 30k EUR.
- The matching company funding is between 4.5k and 170k EUR, with an average of approx. 27k EUR.
- The total requested funding is approx. 924k EUR, the total matching company funding is approx. 1.1M EUR.
- The average proposed TTP duration is 8.6 months.
- 10 of the academic TTP proposers are HiPEAC members. 6 of the submitted project proposals involve company partners that are linked to HiPEAC.



Months 9-18

The second call for TTP proposals has been published on Nov 17, 2014 with the submission deadline set to Dec 31. The same media and channels as in call 1 have been used to announce the call as widely as possible in the computing and embedded systems community.

A small informal survey has been performed in July 2014 among the call 1 TTP proposers about the relative effectiveness of the different distribution channels. The responses indicate that the mailings and personal information e.g. via TT workshops were most important, while the home page and social media were less important for this purpose.

How did you learn about the 1st TETRACOM TTP call?	answers
1. Mailing list	9
2. Internet search	0
3. TETRACOM home page	1
4. Presentation at some conference	4
5. Newsletter (from TETRACOM or HiPEAC)	5
6. Social media	0
7. Personal communication	11

Another informal follow-up survey has been conducted among the call 2 TTP proposers:

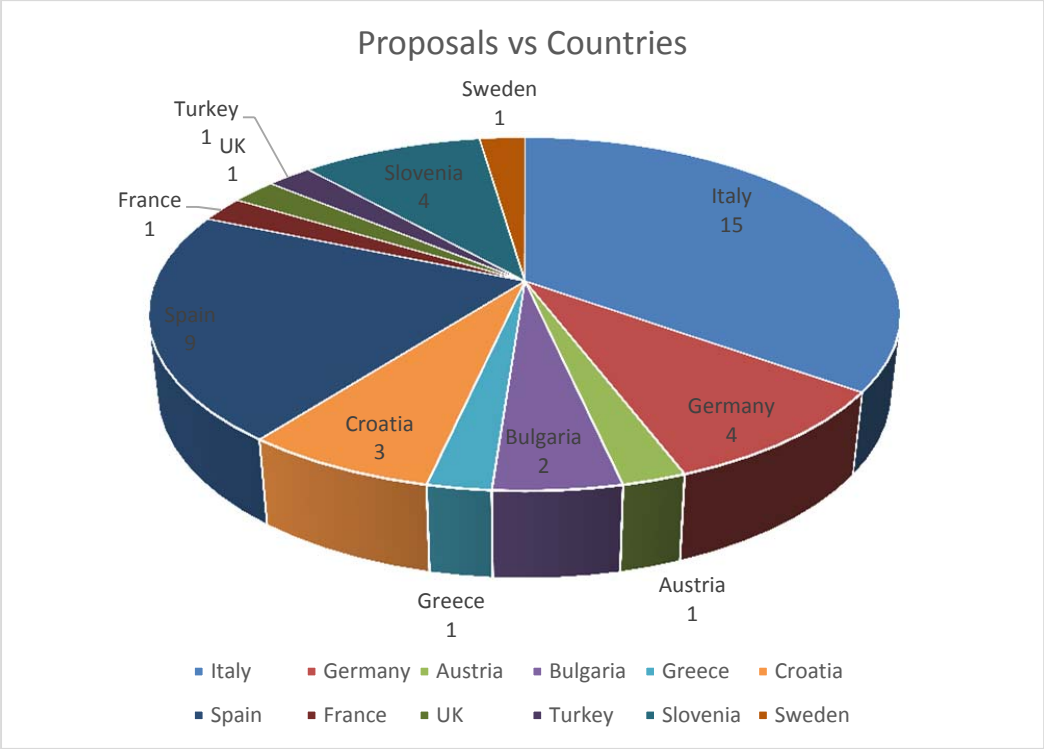
How did you learn about the 2nd TETRACOM TTP call?	answers
1. Mailing list	20
2. Internet search	2
3. TETRACOM home page	10
4. Presentation at some conference	7
5. Newsletter (from TETRACOM or HiPEAC)	12
6. Social media	1
7. Personal communication	19

Again, mailings and personal communications were the most important channels, while the newsletter and web site also received more traction among potential proposers.

The second call for TTPs has been distributed as a package of three different documents. Based on observations during call 1 and reviewer recommendations, some improvements have been made to the first version.

- **The call text (Annex A)**
  - Titles and partners of some accepted TTPs from call 1 have been included in order to provide samples to potential proposers
  - The need for TTP co-funding by the industry partner and the preference for cash-based co-funding have been emphasized
- **Instructions for preparing a TTP proposal (Annex B)**
  - The need for having a PIC in advance has been highlighted
  - The need to deliver an abstract, an impact questionnaire, and a financial report per TTP has been pointed out
  - More precise definitions of “academic” and “industrial” TTP partners have been provided
- **TTP proposal form (Annex C)**
  - The technology transfer plan criteria have been extended by a justified self-assessment of the TRL of the technology underlying the TTP proposal

A total of **43 TTP proposals** have been submitted for TTP call 2 by the deadline via the online submission at http://www.tetracom.eu. The actual proposals are (confidentially) available on request. Some submission statistics are summarized below. For sake of easier comparison, the corresponding numbers from call 1 are given in brackets. Comments are given in case of significant changes.



- The academic proposers originate from 12 [13] different European countries (see chart below), 11 [12] of which are EU countries.
- The company partners are distributed over 11 [10] countries, 10 [9] of which are EU countries.
- 32 [14] proposals involve SME company partners.
    - Comment: Unless statistical noise, SMEs obviously are getting more attractive and interested as industry partners in TTPs.
- 9 [3] proposals come from new EU member states (Bulgaria, Croatia, and Slovenia).
    - Comment: Largely due to the intensive activities of the HiPEAC network in the new member states
- 43 [28] proposals come from outside TETRACOM´s founding consortium.
    - Comment: By construction, due to exclusion of the founding consortium from call 2
- The requested TTP funding from TETRACOM is between 11k [15k] and 73k [78k] EUR, with an average of approx. 28k [30k] EUR.
- The matching company funding is between 7k [4.5k] and 70k [170k] EUR, with an average of approx. 32k [27k] EUR.
- The total requested funding is approx. 1.2M [924k] EUR, the total matching company funding is approx. 1.4M [1.1M] EUR.
    - Comment: Scales with the increased number of TTP proposals
- The average proposed TTP duration is 9 [8.6] months.
- 19 [10] of the academic TTP proposers are HiPEAC members. 3 [6] of the submitted project proposals involve company partners that are linked to HiPEAC.

- Comment: This indicates again the importance of the TETRACOM-HiPEAC collaboration. It also indicates that academic HiPEAC members tend to perform technology transfers with their local industry partner network, frequently SMEs located outside of HiPEAC. This stresses the importance to primarily address the academic community with TETRACOM, as an academic partner can best trigger a TTP in his "private" industry partner network.

The TETRACOM SC considers these results as a successful continuation of the TTP call series:

- The number of TTP proposals went up by around 30%
- There is a significantly higher participation by SMEs and new EU member states
- Most other key data are stable, which indicates that the TTP concept and funding constraints are well understood by the target community

The third and final call for TTPs is scheduled for August 2015.

Task 1.2: TTP EoI´s evaluation and selection

Duration: M6-M28
Lead contractor: UEDIN
Further contributors: all

The Steering Committee will select TTPs to be funded according to the procedures and rules described in part B section 2.1.3 and 2.1.4. UEDIN will manage this process. The other contractors will assist in appointing external expert evaluators and will, in their role as SC members, make funding decisions.

Months 1-8

The external and independent evaluation of all TTP call 1 proposals was finished in May 2014. Afterwards, the SC reviewed the results, ranked the proposals, assigned individual TTP budgets, and invited successful proposers to join the project consortium. The following persons, operating under NDA, served as evaluators. All of them worked voluntarily, so no compensation/honorarium has been demanded.

- John Goodacre, Product Marketing, ARM
- Siegfried Benkner, Professor, TU Vienna
- Francois Bodin, CTO CAPS-Enterprise, Professor INRIA
- Axel Jantsch, Professor, KTH
- Wim De Waele, Director, IMinds
- Colin Adams, Commercialisation Director, Uni Edinburgh

As a result, the following 9 TTP proposals were accepted:

TTP no.	Name/Partner	Country	Duration	EC contribution
5	Igor Skrjanc, UL	SL	M13-M22	€29,232.00
6	Panos Markopoulos, TUE	NL	M13-M18	€30,000.00
7	Pablo F. Gonzalez, UPC	ES	M13-M24	€20,063.00
8	Andrea Cataldo, USalento	IT	M13-M18	€39,996.00
9	David Harvey, LJMU	UK	M13-M24	€32,392.00
10	Tim Willemse, TUE	NL	M13-M21	€49,189.00
11	Norbert Wehn, UNIKL	DE	M13-M18	€27,930.00
12	Ben Juurlink, TUB	DE	M13-M16	€29,960.00
13	Grigori Fursin, CTUNING	FR	M13-M19	€49,969.00

One additional proposal (from INFN, Rome) was also accepted by the evaluators but has been withdrawn later by the proposer due to internal management issues. The remaining 9 TTPs were formally started on Sep 1, 2014.

Months 9-18

The external and independent evaluation of all TTP call 2 proposals was finished in Feb 2015. Afterwards, the SC reviewed the results, ranked the proposals, assigned individual TTP budgets, and invited successful proposers to join the project consortium. The following persons, operating under NDA, served as evaluators:

- Jürgen Teich, University of Erlangen, Germany
- Heiko Falk, University of Ulm, Germany
- Bart Kienhuis, University of Leiden, Netherlands
- Rolf Drechsler, University of Bremen, Germany
- Bernd Janson, Zenit GmbH, Germany
- Frank Gielen, Intec, Belgium
- Laurent Julliard, Kalray, France
- Stanislas De Vocht, Iminds, France

This time each reviewer was paid 500 euros due to a very tight review timescale.

As a result, the following 13 proposals were accepted:

TTP no.	Name/Partner	Country	Duration	EC contribution
19	Christian Haubelt University Rostock	DE	12 months	€37,843.76
20	Petar Yakimov Technical University of Sofia	BG	10 months	€14,600.15
21	Norbert Wehn Universität Kaiserslautern	DE	5 months	€22,344.00
22	Miguel Salido Universitat Politécnica De València	ES	9 months	€11,963,14

23	Franc Novak Jozef Stefan Institute	SI	12 months	€25,000.00
24	Josep Larriba-Pey Centre d'Innovació I Tecnologia	ES	12 months	€25,795.00
25	Kai Lampka Uppsala University	SE	6 months	€33,859.08
26	Holger Blume Leibniz Universität Hannover	DE	10 months	€35,000.00
27	David Harley Liverpool John Moores University	UK	9 months	€37,096.37
28	Roman Trobec Jozef Stefan Institute	SI	6 months	€29,113.00
29	Marko Bertogna Università degli Studi di Modena e Reggio Emilia	IT	10 months	€29,999.59
30	Horacio Perez Fundación Universitaria San Antonio	ES	12 months	€22,744.90
31	Luca Catarinucci University of Salento	IT	10 months	€37,450.00

Task 1.3: TTP impact analysis and White Paper

Duration: M13-M36
Lead contractor: INRIA
Further contributors: all

Granted and completed TTPs will be systematically monitored for impact and total economic and scientific value (as outlined in part B section 2.1.5), and the results will be reported by INRIA and UEDIN. As another key final outcome, the entire consortium will generate, in consultation with E.C. representatives and invited external experts, a TETRACOM White Paper (D1.5), intended as the successor of the White Paper of the Brussels 2011 TT consultation meeting.

Months 1-8

This task was not active in this period, as it needs to rely on a first set of completed TTPs.

Months 9-18

The first TTP impact report (D1.2) has originally been due in Feb 2015. However, due to the somewhat delayed start of the call 1 TTPs (on Sep 1, 2014), due to administrative hurdles, D1.2 has been postponed, in agreement with the PO, to May 2015. It will be based on the new impact analysis questionnaire (Annex E). An advance version of D1.2 will be presented during the 2nd review meeting in May, 2015. By that time, the results of 12 completed TTPs should be available.

Work Package 2: TTI Organization and Dissemination

Task 2.1: TT workshops

Duration: M1-M36
Lead contractor: TUD
Further contributors: all

Semi-annual organization of TT workshops at various locations with invited high-profile expert speakers. TUD will manage the organization, while the other contractors will help in inviting speakers and arranging the workshop programs.

Months 1-8

Three major workshop or conference session events have been organized during the first 8 project months:

- **Technology Transfer in Computing Systems**: The TETRACOM Approach, HiPEAC Computing Systems Week, Tallinn, Oct 2013, organizers: Rainer Leupers, Koen De Bosschere and Koen Bertels
- **Second Workshop on Transfer to Industry and Start-Ups (TISU)**, HiPEAC Conference, Vienna, Jan 2014, organizers: Rainer Leupers, Koen De Bosschere and Koen Bertels
- **Technology Transfer towards Horizon 2020**, Hot Topic Session at DATE, Dresden, Mar 2014, organizers: Rainer Leupers, Norbert Wehn

All events attracted around 40-50 attendees. Details about speakers and agendas are described in Deliverable D2.1 (TTI report 1).

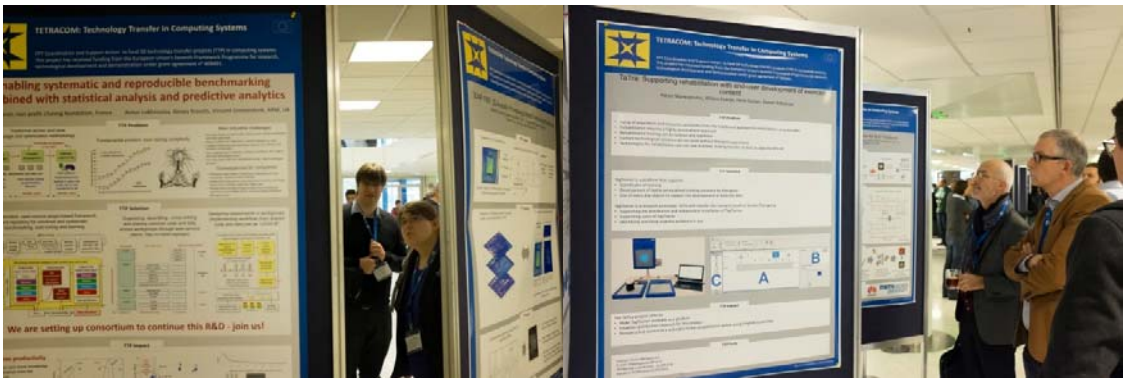
Months 9-18

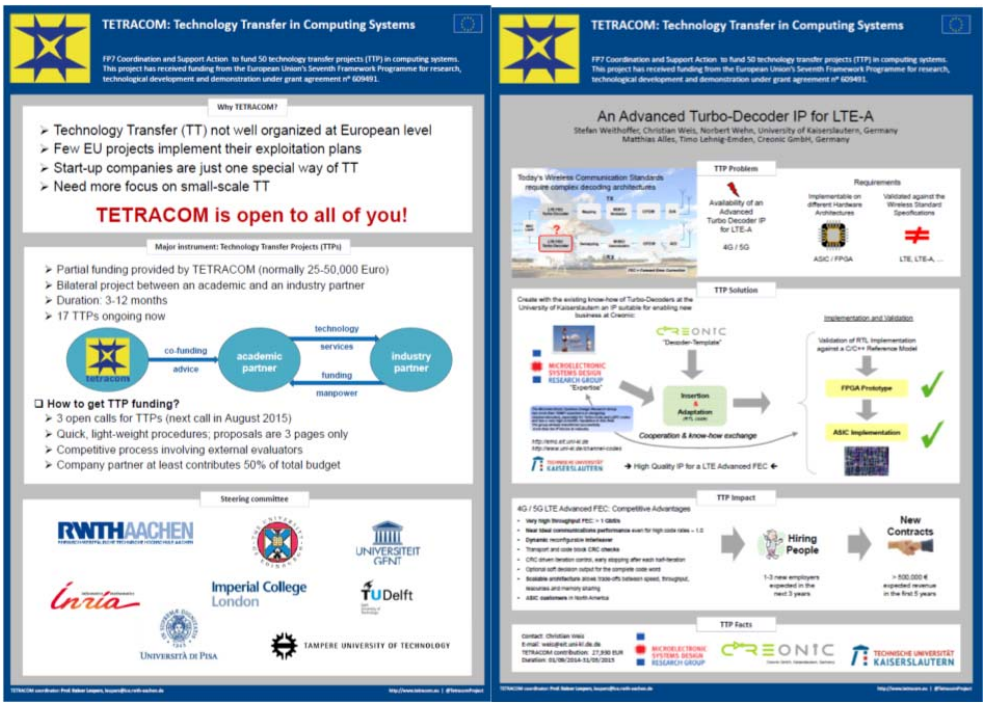
Five major workshop or conference session events have been organized during months 9-18:

- **TETRACOM presentation**, HiPEAC workshop at TU Zagreb, Sep 2014, Rainer Leupers and Koen De Bosschere
- **TETRACOM presentation**, HiPEAC workshop at Jozef Stefan Institute, Ljubljana, Sep 2014, Rainer Leupers and Koen De Bosschere
- **TETRACOM short presentation,** MAD workshop at HiPEAC computing systems week, Athens, Oct 2014
- **Third Workshop on Transfer to Industry and Start-Ups (TISU)**, HiPEAC Conference, Amsterdam, Jan 2015, organizers: Rainer Leupers, Koen De Bosschere and Koen Bertels
- **TTP poster session at HiPEAC Conference,** Amsterdam, Jan 2015, organizers: Rainer Leupers and Koen De Bosschere (see pictures below)

All events attracted a significant number of attendees. Details about speakers and agendas are described in Deliverable D2.2 (TTI report 2).

With these events, TETRACOM is well ahead of schedule regarding the original planning of having three TT workshops organized by Feb 2015. In particular the presentations in Zagreb and Ljubljana were considered very effective, since they immediately triggered TTP proposals from new EU member states. Moreover, the TTP poster session in Amsterdam greatly contributed to the visibility of TETRACOM, since more than 600 conference attendees were able to take a look at all ongoing TTPs, each of which was represented by an individual poster.





Task 2.2: Individual consultation service

Duration: M1-M36
Lead contractor: IMC
Further contributors: all

Organization or provision of specific TT consultation, location of appropriate external experts if appropriate. This process will be managed by IMC. The other contractors will assist by providing their respective know-how and expert networks.

Months 1-8

As a first step towards the implementation of this service, a website with database (preliminarily hosted at https://tetracom-service.doc.ic.ac.uk) was developed to manage the registration of:

- **experts** together with their respective fields of interest supporting this service, and
- **users** seeking consultation with appropriate experts.

The current system, implemented using Ruby On Rails, had a link from the main TETRACOM page. Besides registration of new users and experts, the following functions were also supported:

- search for experts by name or by expertise
- sending and receiving messages between users and experts
- an on-line "help" guide to its functions

This service was advertised to HiPEAC and to other groups which may be interested in and benefit from this service. The facilities of this service were extended based on user feedback, such as providing:
(a) a way for users to provide suggestions to improve this service,
(b) a page describing some of the experienced TT experts available to help.

Months 9-18

After some months of experimentation with the individual consultation service, it was found that the demand for this web-based service was below expectation. One reason is that potential proposers can be reluctant to use a web service for consultation, and most questions concerning TT in TETRACOM were often handled via personal communications and Emails.

On the other hand, there have been several requests by unsuccessful TTP proposers for a more detailed feedback on their proposals, so as to improve their chances for acceptance in future TTP calls. Moreover, it was found (and also recommended by the TETRACOM IAB) that TETRACOM should intensify its outreach activities to other TT agencies and to related projects and initiatives. In fact, the TETRACOM SC has already informally started with these new activities.

As an experiment for the feedback service, we contacted 19 authors of the proposals in the first TTP call who were unsuccessful. Six of them accepted our assistance, and we supplied them with details about why their proposal was rejected, and suggested improvements based on the weaknesses that the reviewers highlighted. Two applicants contacted us with an updated version of their proposals, on which we provided detailed feedback to rectify prior reviewers' concerns, as well as general advice based on successful applications the first call. To our knowledge, at least one of these proposals was resubmitted. For the connection service, a number of technology transfer agencies in Europe were contacted.

As a conclusion, the TETRACOM SC recommends to cancel the individual consultation service and to formally replace task 2.2 in the future by the following:

Task 2.2 new: Proposer feedback and TETRACOM outreach

Duration: M19-M36
Lead contractor: IMC
Further contributors: all

Provision of detailed individual feedback and consultation to TTP proposers, in particular unsuccessful proposers, based on TTP proposal evaluation results. Identification of, and communication with, related TT agencies, initiatives, and projects.

The goals of this new task are as follows:

- Help TTP proposers to maximize the quality of their future proposals, in particular clarify the profile of TTPs expected in TETRACOM
- Connect TETRACOM to related agencies and TT initiatives, so as to identify synergies and help with the distribution of TTP calls and project communications

Task 2.3: TETRACOM WWW

Duration: M1-M36
Lead contractor: UPISA
Further contributors: none

UPISA will design and provide maintenance of the project web site. The domain www.tetracom.eu has already been reserved by the coordinator and will be handed over to UPISA upon project start.

Months 1-8

The TETRACOM web site can be found at http://www.tetracom.eu. Initially hosted by RWTH, its maintenance was handed over to UPISA in Feb 2014. Details of the web site setup and contents are provided in Deliverable D2.1. During March-April 2014 the project home page had 837 visits, and the TTP call information had 356 hits. A systematic analysis via Google Analytics has been running from the end of April 2014.

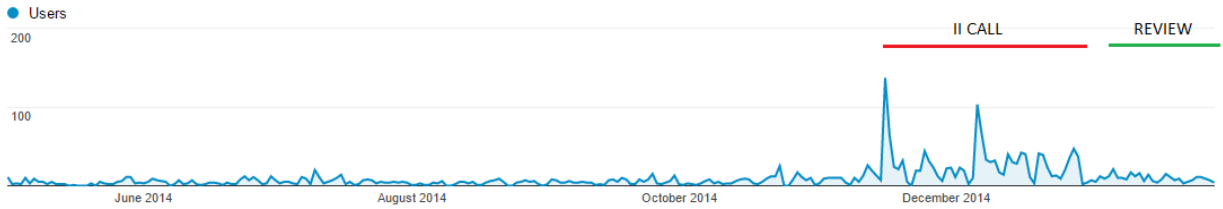
Months 9-18

The contents and the structure of the TETRACOM website were updated in this period. In particular, news about the project and the related events were added, as well as some downloadable material. Moreover, the structure of the submission form was updated to reflect the new version of the proposal template established for the second TTP call. Finally, a new main page was added to list the funded projects that had chosen to be announced once the funding had been granted. Some details of the updated version of the website are provided in Deliverable D2.2.

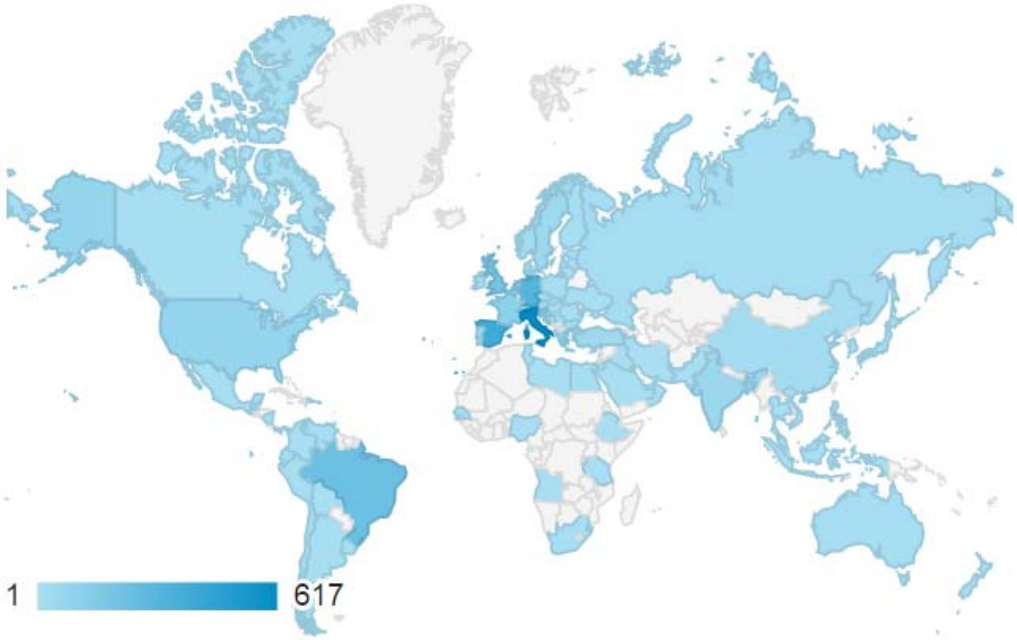
Some statistics and analysis about the period are summarized in the rest of this paragraph.

- 36 new users completed the registration, for a total of 101 users currently registered on the website;
- The website was visited by 1,985 different users worldwide, for a total of 10,278 page views;
- The bounce rate is 54.70% (percentage of single page visit);
- There were 3.086 sessions (period of time the user is engaged with the website), with an average duration of 3 minutes and 14 seconds;
- 64% of the sessions were from new users, that visited the website for the first time;
- 93% of the users accessed the website through PC (Windows, Macintosh and Linux) while only 6 % use a mobile device.

The figure below shows the number of different users that had at least one session within the period. It is possible to see that the highest number of visits is concentrated in the period of the opening of TTP call 2, with the highest peaks corresponding to the opening day (17th November), the 8th December and the last two days before the deadline. Next to the "hot" periods it also important to note that the TETRACOM web site has a relatively constant number of visitors.



The figure below shows the worldwide distribution of the sessions. The top three countries are Italy (19,99 %), Spain(12,99 %) and Germany (10,24 %). Follow Brazil (7,55 %), UK (6,09 %), Slovenia (4,18 %), Netherlands (4,12 %), France (3,47 %), Belgium (3,05 %), Greece (2,46 %), US (2,43 %) and Croatia (2,14 %). Each other country contributes less than 2 %.



The figure below shows the behavior of the users that visited the website. The most important page is the home page reachable by the URL www.tetracom.eu. The other starting pages correspond to the ones provided by a Google search for the “tetracom” keyword. Excluding the home page, the most visited pages are about the call information and submission guidelines, with the main *Call for projects* page that the users typically reach directly or in one step.

The website is the first result searching for the keywords “tetracom eu” on Google (www.google.com) and the second result searching only for “tetracom” while in this case the first result is about an Australian company. Most of the results in the first page provided by Google, searching for “tetracom”, are about the project including the website pages, and social profiles.

Task 2.4: Newsletter and press releases

Duration: M1-M36
Lead contractor: UGENT
Further contributors: all

UGENT will edit and publish a compact semi-annual TT newsletter. The possibility of integrating this, at least temporarily, as a regular "column" in the existing HiPEAC newsletter will be investigated. Two press releases (D2.5 and D2.6) will be also be generated. The other contractors will contribute to these publications.

Months 1-8

The kickoff press release (see Deliverable D2.5 for details) has been launched in January 2014 and has been widely distributed. Following the well-proven HiPEAC model, the SC has decided to replace the semi-annual newsletter schedule by a more flexible, "on-demand" one with shorter newsletters, yet at somewhat higher frequency. Newsletters will be issued any time when a sufficient amount of news has accumulated. The first newsletter has been published in Feb 2014 (see Deliverable D2.1 for details). The next issue is planned for June 2014 after the first round of TTP calls has been concluded.

Months 9-18

Newsletters 2 and 3 have been published on

- July 10, 2014, key message: starting of first TTPs, pre-announcement of TTP call 2
- Oct 24, 2014, key message: announcement of TTP call 2 and several TTIs

All details are given in Deliverable D2.2. A status update after TTP call 1 has also been published in the HiPEAC newsletter in Oct 2014. The next TETRACOM newsletter issue is planned for March 2015 after the second round of TTP calls has been concluded.

Task 2.5: TETRACOM main workshop

Duration: M24-M24
Lead contractor: UGENT
Further contributors: all

UGENT will organize the main project workshop (Deliverable D2.4, described in part B, section 1.1.3). The other contractors will by default participate to the workshop and will help defining its program.

Months 1-8

This task is not yet active. The SC currently plans to co-locate the main workshop with a major HiPEAC event in fall 2015 for synergy reasons.

Months 9-18

The SC plans to organize the main workshop during the HiPEAC computing systems week in Milano, Sep 2015. The detailed organization will take place during summer 2015, and the workshop will be announced via the same channels as the TTP calls.

Work Package 3: Individual TTPs

Months 1-8

In order to ramp up the TTP activities, as agreed in the DoW, SC members are entitled to propose one or two "initial TTPs" themselves with a total budget of 50k EUR outside of the regular TTP calls. The following four initial TTPs have been approved by the SC. The actual proposals are (confidentially) available on request.

Task	Proposer	Company partner	Duration	Requested TETRACOM funding (EUR)	Industry partner contribution
Task 3.1	**TTP 1: System-level power estimation for SoC platforms**				
	RWTH	Huawei Technologies, USA	Jan 2014 – Jun 2014	€25,000.00	€170,000.00 (cash)
Task 3.2	**TTP 2: Software protection of native Android libraries**				
	UGENT	Samsung Electronics, UK	Jan 2014 – Sep 2014	€25,000.00	€60,000.00 (cash)
Task 3.3	**TTP 3: Design of a digital processor for 3D Hall sensors conditioning in automotive applications**				
	PISA	AMS AG, AT	Mar 2014 – Nov 2014	€25,000.00	€25,000.00 (cash)
Task 3.4	**TTP 4: BWAMEM : the most advanced genetic sequencing algorithm**				
	TU DELFT	BlueBee, NL	Apr 2014 – Jan 2015	€50,000.00	€60,000.00 (manpower)

Months 9-18

As a result of TTP call 1 and the approval of further "initial TTPs", the list of TTPs has been extended by the following 13 projects:

Task	Proposer	Company partner	Duration	Requested TETRACOM funding (EUR)	Industry partner contribution
Task 3.5	**TTP 5:** **Nonlinear System Identification with advanced local linear models**				
	UL	Evon GmbH, AT	Sep 2014 – Jun 2015	€29,232.00	€30,131.00
Task 3.6	**TTP 6:** **TaTra**				
	TUE	SymbioTherapy, NL	Sep 2014 – Apr 2015	€30,000.00	€30,000.00
Task 3.7	**TTP 7:** **Scalable Community Detection on the Cloud (SCDC)**				
	UPC	Sparsity Technologies, ES	Sep 2014 – Aug 2015	€20,063.00	€28,000.00
Task 3.8	**TTP 8:** **An Innovative Diffused Monitoring of Moisture and Health in Building Structures**				
	USalento	EDIL GE.O.S. s.r.l., IT	Sep 2014 – Apr 2015	€39,996.00	€30,000.00
Task 3.9	**TTP 9:** **3DAP-TIME: 3D Acoustic Processing To Inspect Manufactured Electronics**				
	LJMU	Sonoscan, UK	Sep 2014 – Aug 2015	€32,392.00	€33,000.00
Task 3.10	**TTP 10:** **VICTORIA**				
	TUE	Verum Software Tools B.V., NL	Sep 2014 – May 2015	€49,189.00	€50,911.00
Task 3.11	**TTP 11:** **LTE-IP**				
	UNIKL	Creonic GmbH, DE	Sep 2014 – Apr 2015	€27,930.00	€28,000.00
Task 3.12	**TTP 12:** **eGPU accelerated HEVC/H.265 video decoder**				
	TUB	Think Silicon Ltd., GR	Sep 2014 – Dec 2014	€29,960.00	€29,637.12
Task 3.13	**TTP 13:** **Collective Mind for ARM (collaborative, systematic and reproducible benchmarking and optimization of computer systems)**				
	CTUNING	ARM, UK	Sep 2014 – Mar 2015	€49,969.00	€78,000.00
Task 3.14	**TTP 14:** **Multicore Platform SW Optimization with the MAPS Compiler**				
	RWTH	HUAWEI	Sep 2013 – Dec 2014	€25,000.00	€170,000.00

		Technologies, CN			
Task 3.15	**TTP 15:** **GOMPPA: GNU OpenMP 4.0 for the Kalray MPPA manycore processor**				
	INRIA	Kalray, FR	Dec 2014 – Aug 2015	€50,000.00	€110,000.00
Task 3.16	**TTP 16:** **Benchmarking Short Read Mapping Platforms**				
	IMPERIAL	BlueBee BV, NL	Nov 2014 – Apr 2015	€25,000.00	€36,000.00
Task 3.17	**TTP 17:** **Analysis of security risks & threats and the design of a hardware secure module to perform cipher algorithms for automotive applications**				
	UNIPI	Renesas Electronics Europe Ltd.	May 2014 – Apr 2015	€ 50,000.00	€106,400.00
Task 3.18	**TTP 18:** **multi-ConstellATion software GNSS receiver (CAT-GNSS)**				
	TUT	Catena Holding B.V.	Apr 2015 – Dec 2015	€ 50,000.00	€ 50,000.00 (15,000 cash, 35,000 manpower)

The following deliverables from the above individual TTPs are already available:

- D3.1
- D3.2
- D3.3
- D3.4
- D3.8
- D3.11
- D3.12
- D3.14

D3.13 (CTUNING, due in M22 - June), D3.6 (TUE TaTra, not yet started) are delayed because of staff recruiting problems. These deliverables will be provided as soon as they become available. This list will be extended after the start of the call 2 TTPs, resulting in 30 ongoing or finished TTPs in total.

Project Management during the Period

Work Package 4: Project Management

Task 4.1: SC meetings

Duration: M1-M36
Lead contractor: RWTH
Further contributors: all

Organization, hosting, and documentation of the Steering Committee´s monthly telco meetings and at least one physical meeting per year by RWTH. A physical kickoff meeting will be organized at RWTH Aachen within 4 weeks after project start. All contractors will by default participate to all SC meetings, except in case unavailability due to urgent other matters. RWTH will also aim at arranging ad-hoc physical meetings on demand as satellite events of major conferences, HiPEAC meetings etc.

Months 1-8

The procedure for hosting regular SC meetings is as follows:

1. The next meeting time frame is determined according to necessities induced by the project schedule.
2. The coordinator determines a date where most SC members can attend.
3. The coordinator sends out the agenda proposal one week before the meeting date.
4. The SC meeting takes place, usually via phone and Webex access kindly provided via the HiPEAC network.
5. The coordinator sends out the meeting minutes shortly afterwards.

So far the following SC meetings took place:

1. Sep 23, 2013 (kickoff meeting in Aachen)
2. Oct 21, 2013 (webex)
3. Nov 25, 2013 (webex)
4. Jan 21, 2014 (personal meeting at the HiPEAC conference in Vienna)
5. Mar 17, 2014 (webex)
6. Apr 2, 2014 (webex)

Months 9-18

The following SC meetings took place during the second project period:

1. May 13, 2014 (personal meeting at 1st project view, Barcelona)
2. Jun 26, 2014 (webex)
3. Sep 19, 2014 (personal meeting at 1st IAB meeting, Brussels)

4. Nov 13, 2014 (webex)
5. Jan 8, 2015 (webex)
6. Feb 17, 2015 (webex)

All meeting minutes are confidentially available on request and are also stored in the private section of the TETRACOM web site.

Task 4.2: IAB meetings

Duration: M10-M36
Lead contractor: INRIA
Further contributors: all

Organization, hosting, and documentation of one physical meeting of the SC with the TETRACOM Industrial Advisory Board per year. These meetings will be managed and invited by INRIA. Since the IAB meetings constitute the major reflection points for the entire project strategy, they form milestones MI1-3.

Months 1-8

While extensive industrial involvement in TETRACOM is guaranteed by design, the project consortium only consists of academic contractors. To facilitate the establishment and adaptation of long-term TT strategies, and to collect feedback from independent, management-level industry experts, the project relies on a small-scale Industrial Advisory Board (IAB). Note that for sake of independence, IAB members cannot be personally involved in concrete TTPs themselves.

The current IAB is composed of three industry leaders with a unique experience of scientific and technological research transferred into concrete innovations and production environments.

- Dr. Tero Rissa, Distinguished Engineer, Nokia Technologies
- Dr. ir. Martijn Rutten, CEO, Vector Fabrics
- Dr. Matthias Weiss, Manager Systems Engineering, Intel Mobile Communications, Dresden

Months 9-18

The first IAB meeting took place in Brussels on Sep 19, 2014. All IAB and SC members attended the meeting. The agenda included:

- Detailed presentation of the TETRACOM concept and status (R. Leupers)
- Sample TTP presentations by UPISA and UGENT (L. Fanucci, K. De Bosschere)
- Open discussion between IAB and SC

The detailed meeting minutes are (confidentially) available on request. Informally, the major feedback points were:

Academics should actively search for companies to make TETRACOM and TTP results widely visible also to yet unknown companies.
Push researchers to mobilize their own contacts with industry partners and to encourage more and more participants to take part in technology transfer.
Invite experts, reviewers, TTP success stories, etc. to the main workshop, connect the workshop with the HIPEAC event, create strong synergies between HIPEAC and TETRACOM to reach more people.
Key question is how to measure the impact of the TTPs.
Ask the applicants how they heard about the call (via website, through mailings, press articles, business contacts, TETRACOM partners, other, etc.).
The presented achievements are very impressive. TETRACOM aims to support real IP transfer for a concrete usage vs. just broadcasting and hence is one of the first of its kind.
In contrary to other initiatives the size per TTP is very suitable, i.e. 3 page proposals for approx. one man year avoid heavy process overhead.
Number of proposals received in first iteration shows a very good traction.
Attempt to link to other similar initiatives to further widen acceptance.
Scope should be further streamlined, given the medium sized budget and high number of imitative to support.
The learnings from this initiative should be actively used to form successive programs and find further novel ways to foster academia to industry transfer.
The structure of supporting universities and not industry directly seems to be the best way for such a program.
Also, the approach to support projects with companies outside EU as long as they have EU business is very suitable.
This activity is very important to tap on academia's huge innovation potential for fostering new business and enterprises.
The challenge will be to go from papers to business cases. TETRACOM might be the right way to find a solution. Technology transfer is a very difficult item to tackle TETRACOM fills a clear void of transferring smaller bodies of work.
Lean process with a 2/3 page proposal matches the available funding.
The funding of approx. 30k per project matches with academic work that is too small to spin off as a company.
Local communities and governments develop similar initiatives to facilitate academic technology transfers. While it is infeasible to link to all these communities, I would like to see at the very minimal a more direct attempt to align through direct contacts.
As academic technology transfer is known to be hard, I would like to see TETRACOM having an explicit goal to learn from the transfers and share this with the community.
As a learning instrument, it would be good to compare the TRL as filled in by the academic organization by the TRL as assessed by the receiving company, and document the learning. As a first step, the TRL should be entered as a list of acceptance criteria.

The SC drew the following main conclusions from the discussions with the IAB:

- In general, the TETRACOM project concept and instruments are very well received also from the industrial perspective.
- There should be more outreach activities, which motivated the corresponding proposed change of task T2.2. Next to this, TETRACOM needs to continue to reach new actors via its TTI activities within WP2 and its tight link to the HiPEAC network (see also the mini-survey results mentioned in task T1.1).
- In line with the reviewers´ recommendations, more emphasis should be put on concrete impact measurement. For this purpose, the TTP impact questionnaire (Annex E) has been developed, and the TRL has been included as a new evaluation criterion in the TTP proposal template.

The second IAB meeting will be co-located with the HiPEAC computing systems week in Sep 2015 in Milano.

Task 4.3: Central administration

Duration: M1-M36
Lead contractor: RWTH
Further contributors: all

Management of incoming and outgoing consortium members, contract and amendment handling, consortium agreement handling, financial and cost claims management, communications with E.C. representatives, general project reporting, travel cost reimbursement, organization/preparation of E.C. project review meetings, preparation of deliverables D4.1-D4.3, quality control of all deliverables.

Months 1-8

The following administrative subtasks have been carried out during months 1-8:

- **Assignment of project staff**: Dipl.-Ing. Maximilian Odendahl from RWTH´s ICE institute assists the coordinator in the day-to-day management tasks. Mrs. Malgorzata Kögerler and Mr. Sebastian Dornieden from RWTH´s central administration are responsible for handling all financial and contractual project matters.
- **Negotiation of the Consortium Agreement**: An agreement specifying the partners´ mutual rights and duties has been agreed and signed at RWTH Aachen University on July 9, 2013.
- **Deliverables management**: Planning and management of deliverables D2.1, D2.5, and D4.1.
- **EC communication**: RWTH staff participated in the ICT Project Coordinators Day, Mar 13, 2014 in Brussels. The coordinator met the project officer for a 1:1 discussion on project status and strategies on April 8, 2014 in Brussels.
- **Pre-financing**: The pre-financing payment to the TETRACOM consortium has been received by RWTH Aachen and amounted to 1,300,201 EUR after deduction of the beneficiaries' contribution to the Guarantee Funds. After all partners had acceded to the grant agreement (signed by the Commission on July 10, 2013), the pre-financing was distributed by RWTH Aachen to the partners on time for the project period 1.9.2013-1.3.2015. The calculation of pre-financing for each partner was based on the budget distribution planning outlined in the DoW and is summarized below.

Participant	Share	EU Contribution	Pre-financing	Remaining
TTPs	0,488	974.000 €	634.472 €	339.528 €
RWTH	0,156	312.252 €	203.404 €	108.848 €
RWTH + TTPs	0,644	1.286.252 €	837.876 €	448.376 €
UEDIN	0,055	109.889 €	71.583 €	38.306 €
UGent	0,055	109.889 €	71.583 €	38.306 €
INRIA	0,055	109.889 €	71.583 €	38.306 €
Uni PISA	0,048	95.016 €	61.894 €	33.122 €
TU Delft	0,048	95.016 €	61.894 €	33.122 €
TUT	0,048	95.016 €	61.894 €	33.122 €
Imperial	0,048	95.016 €	61.894 €	33.122 €
∑	**100%**	**1.995.983 €**	**1.300.201 €**	**695.782 €**

Months 9-18

The following administrative subtasks have been carried out during months 9-18:

- **Assignment of project staff:** Dipl.-Ing. Jan Weinstock from RWTH´s ICE institute assists the coordinator in the day-to-day management and reporting tasks. Mrs. Eva Haas and Mr. Sebastian Dornieden from RWTH´s central administration are responsible for handling all financial and contractual project matters.
- **SC/IAB meetings, regular SC telephone conferences and jour-fix appointments** to monitor the status, issues, event planning and highlights as well as defining next steps (meetings, agenda, individual discussions, minutes, follow-up)
- **Deliverables management**: Planning and management of deliverables D1.1, D2.2, all available D3.x, and D4.2.
- **General, financial and contractual project matters:**
    - Clarification of CSA processes and reporting tasks with the German National Contact Point and the European Commission
    - Preparation of guidelines and templates for the first periodic report
    - Regular exchange by email and phone with project partners for clarification of general and financial questions (ECAS, Form C, use of resources, payments)
    - Draft and maintain the payment master excel list to monitor the percentage of payment and remaining EU contribution per partner on a regular basis
    - Regular monitoring of the status of all TTPs, collect deliverables and impact questionnaires
- **Execution of the TTP call 1 and 2 amendment request for the accession of new partners to the TETRACOM consortium:**
    - Clarification of an amendment process within the framework of a CSA project with the European Commission

- Draft and maintain the TTP master excel list to provide an overview of all details at any time to the Coordinator and the SC members
- Draft templates and contact call 1 + 2 partners requesting information on legal data, budget and financial identification; check key facts (start/end date, person-months, budget)
- Clarification of the new partners' questions regarding their role within the consortium, the pre-payment and financial aspects
- Formal tasks of the amendment no. 1: amendment request letter, ECAS registration and budget allocation, update of the Technical Annex I, collection of GA accession form, GPF and CA
- Appointments with the RWTH department for third-party funds to explain the amendment process, budget allotments and other requests
- Pre-payment to new call 1 partners (50%)
- Start of the call 2 amendment request

- **Arrangements for spreading out the open calls** via the Transfer Technology department at RWTH

Deliverables and milestones tables

Del. no.	**Deliverable name**	**WP no.**	**Lead beneficiary**	***Nature***	**Dissemination level**	**Delivery date from Annex I (proj month)**	**Actual / Forecast delivery date dd/mm/yyyy**	**Status Not submitted/ Submitted**	**Comments**
1.1	TTP calls statistics 1	1	UEDIN	R	PU	18	05/03/2015	submitted	
1.2	TTP calls statistics 2	1	UEDIN	R	PU	36	31/08/2016		
1.3	TTP impact report 1	1	INRIA	R	CO	21	31/05/2015		Postponed from March 2015 according to DoW
1.4	TTP impact report 2	1	INRIA	R	CO	36	31/08/2016		
1.5	TETRACOM White Paper	1	INRIA	R	PU	36	31/08/2016		
2.1	TTI report 1	2	UGENT	R	PU	8	30/04/2014	submitted	

2.2	TTI report 2	2	UGENT	R	PU	18	28/02/2015	submitted	
2.3	TTI report 3	2	UGENT	R	PU	36	31/08/2016		
2.4	TETRACOM main workshop	2	UGENT	O	PU	24	23/09/2015		
2.5	Kickoff press release	2	UGENT	R	PU	3	06/01/2014	submitted	
2.6	Final press release	2	UGENT	R	PU	36	31/08/2016		
3.1	TTP abstract	3	RWTH	R	PU	11	31/07/2014	submitted	
3.2	TTP abstract	3	UGENT	R	PU	14	15/11/2014	submitted	
3.3	TTP abstract	3	PISA	R	PU	16	26/02/2015	submitted	Slight delay due to mandatory company partner review
3.4	TTP abstract	3	TU DELFT	R	PU	18	25/02/2015	submitted	
3.5	TTP abstract	3	UL	R	PU	23	31/07/2015		
3.6	TTP abstract	3	TUE	R	PU	19	31/11/2015		Not started yet because of staff recruiting problems. Estimated TTP start time: May 2015 Expected delivery date: Nov 2015
3.7	TTP abstract	3	UPC	R	PU	25	30/09/2015		
3.8	TTP abstract	3	U SALENTO	R	PU	19	18/02/2015	Submitted	
3.9	TTP abstract	3	LJMU	R	PU	25	30/09/2015		
3.10	TTP abstract	3	TUE	R	PU	22	30/06/2015		
3.11	TTP abstract	3	UNIKL	R	PU	19	24/02/2015	submitted	Submitted in advance,

									might be updated in April 2015
3.12	TTP abstract	3	TUB	R	PU	17	11/02/2015	submitted	
3.13	TTP abstract	3	CTUNING	R	PU	20	30/06/2015		Delivery date planned: M20. Delayed by 2 months because full-time engineering work started only in Nov 2014. Expected delivery date: M22 (June 2015)
3.14	TTP abstract	3	RWTH	R	PU	17	23/02/2015	submitted	
3.15	TTP abstract	3	INRIA	R	PU	23	31/07/2015		
3.16	TTP abstract	3	IMPERIAL	R	PU	21	31/05/2015		
3.17	TTP abstract	3	UNIPI	R	PU	21	31/05/2015		
4.1	Periodic project report 1	4	RWTH	R	PU	8	30/04/2014	submitted	
4.2	Periodic project report 2	4	RWTH	R	PU	18	28/02/2015	submitted	
4.3	Periodic project report 3	4	RWTH	R	PU	36	31/08/2016		

TABLE 2. MILESTONES							
Milestone no.	**Milestone name**	**Work package no**	**Lead beneficiary**	**Delivery date from Annex I dd/mm/yyyy**	**Achieved Yes/No**	**Actual / Forecast achievement date dd/mm/yyyy**	**Comments**
1	**Call for TTPs 1**	**1**	**TUT**	**15/02/2014**	**yes**	**15/02/2014**	
2	**Call for TTPs 2**	**1**	**TUT**	**15/11/2014**	**yes**	**15/11/2014**	
3	**Call for TTPs 3**	**1**	**TUT**	**15/08/2015**		**15/08/2015**	
4	**IAB meeting 1**	**4**	**INRIA**	**31/08/2014**	**yes**	**19/09/2014**	
5	**IAB meeting 2**	**4**	**INRIA**	**31/08/2015**		**24/09/2015**	**During HiPEAC CSW**
6	**IAB meeting 3**	**4**	**INRIA**	**31/08/2016**		**31/08/2016**	

Explanation of the use of the resources and financial statements

All beneficiaries have applied the EC's principles 1 – 3 when filling the Use of Resources for the reporting period 1.

A detailed explanation of the use of resources per cost activity (Coordination/Support, Management and Other) and cost category (personnel, travel, consumables, equipment, subcontracting) will be presented once all project partners have submitted their financial statements via the online ECAS participant portal and completed by the end of April at the latest.

Annex A – 2nd call for TTP proposals

TETRACOM – 2nd Call for TTP Proposals

Partial Funding for Academia-Industry Technology Transfer Projects

in Computing Systems

Call deadline: December 31, 2014

Total budget in this call: 300,000 EUR

TETRACOM (Technology Transfer in Computing Systems) is a Coordination Action funded by the European Commission under FP7 to coordinate and support technology transfers from academia to industry.

A funded Technology Transfer Project (TTP) can typically last 3-12 months, and the total budget can span from 20k to 200k EUR, of which TETRACOM can pay up to 50% (10k to 100k EUR). TETRACOM funding is only for academic beneficiaries, e.g., universities, publicly funded research centers. The company partner will either co-fund the transfer project at the university or invest its own work – or both. During the review process, TTP proposals with a cash contribution from the company partner will be preferred.The expected average size of the TETRACOM grant will be EUR 25k euros. All the costs need to be eligible costs as per EU FP7 project rules, e.g., no value added tax included. A public summary of the activity will be published after the TTP.

The applicant organization is the university legal entity. A Participant Identification Code (PIC) in the European Commission database will be needed for including the university as a new beneficiary in the TETRACOM consortium for funding the TTP. To find out or register your organisation's PIC code, please refer to the Participant Portal (http://cordis.europa.eu/fp7/pp-pic_en.html).

Only companies with business activities and/or physical sites in European Union or Associated States are eligible as technology transfer partners. However, the actual collaborating company department does not necessarily have to be located itself in these countries. The research institution and the company are responsible for entering into a bilateral contract on the technology transfer. The partnership to TETRACOM consortium cannot be established before the existence of such a contract has been proven. The academic partner has also to accede to the existing grant agreement and consortium agreement.

The TTP proposals will be evaluated by external experts under a Non-Disclosure Agreement (NDA). The steering committee of TETRACOM will perform the final approval or rejection of the proposals and decide the exact budget assignment for accepted proposals under confidential conditions.

See the attached instructions and proposal template for more details. The proposals have to be submitted via the TETRACOM web site no later than on **December 31, 2014**. The funding period after proposal acceptance and subsequent TETRACOM consortium extension is expected to start at earliest on April 1, 2015.

Furher information:

TETRACOM web site: www.tetracom.eu

TETRACOM Coordinator: Prof. Rainer Leupers, RWTH Aachen, Germany, email: leupers@ice.rwth-aachen.de

Other TETRACOM steering committee members: Koen Bertels (University of Delft), Koen de Bosschere (University of Gent), Albert Cohen (INRIA), Luca Fanucci (University of Pisa), Wayne Luk (Imperial College London), Jari Nurmi (Tampere University of Technology), Michael O'Boyle (University of Edinburgh).

Technology transfer projects require a certain level of maturity or readiness of the technology for such an action to be successful. A too low TRL (Technology Readiness Level) indicates that there is still a need for research and development activities before going for commercialization.

Here you can find some examples of technology transfer projects already accepted for TETRACOM funding:

TTP title	**Partner**
BWAMEM : the most advanced genetic sequencing algorithm	TU Delft
Nonlinear System Identification with advanced local linear models	University of Ljubljana
High Speed Serial Links Signal Integrity Toolsuite (HISSIST)	INFN
TaTra	TU Eindhoven
Scalable Community Detection on the Cloud (SCDC)	U Politècnica de Catalunya
An Innovative Diffused Monitoring of Moisture and Health in Building Structures	U Salento

3DAP-TIME: 3D Acoustic Processing To Inspect Manufactured Electronics	Liverpool John Moores U
LTE-IP	TU Kaiserslautern
eGPU accelerated HEVC/H.265 video decoder	TU Berlin

Annex B – 2nd call TTP proposal instructions

TETRACOM TTP Proposal

INSTRUCTIONS FOR COMPLETING THE PROPOSAL

Call deadline: 31/12/2014

Administrative data

Project title

Give the project a descriptive title. An acronym may also prove helpful.

Project duration (months) and preferred project start date

The project can typically last 3-12 months. Do not give an earlier preferred starting date than April 1, 2015. The review will take approximately 4-6 weeks after the call deadline and the paperwork to include the new partners another 4-6 weeks. The TTP can be part of an already ongoing bilateral collaboration or transfer project. In this case, the start of that underlying bilateral project should not be earlier than 3 months before the TTP starting date.

Applied TETRACOM funding to the university (euro)

TETRACOM funding is only for academic beneficiaries. The company partner will either co-fund the transfer project at the university or invest its own work – or both. TETRACOM can fund technology transfers with 10k to 100k EUR, but bear in mind that the average size of the grant will be EUR 25k. Overbudgeting may lead to rejecting the proposal. The funding is typically limited to 50% of the total technology transfer budget including the company partner´s contribution.

Example: University U agrees on a technology transfer with company C for a total value of 150k EUR. C pays 25k EUR in cash to U and allocates own manpower equivalent to 50k EUR. Thus, C provides 50% of the total budget. U can apply for a TETRACOM contribution for the remaining 50%, i.e. any amount between 10k EUR and 75k EUR in this example.

Matching company funding (EUR) and type (cash / manpower)

The company will co-fund the technology transfer project at the university with real money. Company funding share below 50% has to be well justified in the plan. In case of SMEs, the investment may be partially or completely done by personnel resource allocation within the company. This must be calculated in the budget section, and value of the work certified by a company financial officer before the TTP start. By default, cash (instead of pure manpower) contributions by the company partner are preferred.

Applicant organization

The applicant organization is the university legal entity. The applicant must be registered in the EC's data base with a Participant Identification Code (PIC). The PIC will be needed to include the university as a new partner in the TETRACOM consortium for funding. To find out or register your organisation in the EC's data base please refer to the Participant Portal (http://cordis.europa.eu/fp7/pp-pic_en.html). If the applicant does not have a PIC code yet, the registration process should be started as soon as possible as the process may take some time..

"University" here means a university, other publicly funded higher education institution, or publicly funded research organization.

Contact (Scientist in charge at the university)

The person responsible for the technology transfer at the university (scientist in charge) and her/his contact information.

Technology transfer company partner

The name of the company to which the technology is to be transferred and who is co-funding this activity. "Company" here means an entity that is privately funded. In particular, largely or fully publicly funded research organizations are not eligible as company partners.

Company partner legal entity established in (city, country)

The city and country of the company legal entity. Only companies with business activities and/or physical sites in European Union or Associated States are eligible. However, the actual collaborating company department does not necessarily have to be located itself in these countries.

Bilateral contract on technology transfer between the university and company

The university and the company are responsible for entering into a bilateral contract on the technology transfer. The partnership to TETRACOM consortium cannot be established before the existence of such a contract has been proven.

When joining the consortium and starting the actual TTP, the university partner has also to accede to the existing grant agreement and consortium agreement.

TETRACOM may announce the technology transfer

After completing the TTP, a public abstract (Deliverable) has to be drafted and delivered to the European Commission. This abstract will also be published at the end of the funded technology transfer in any case. If permission is given, TETRACOM may publish the title and partners of the TTP already when the funding has been approved.

In addition, the university partner has to do a financial report and return an impact evaluation questionnaire to the TETRACOM organizers.

Technology transfer plan

Expected impact

Describe the expected added value from the technology transfer. Both academic impacts such as probability of publications and incorporation of start-ups, and economic impacts such as the number of users of the technology inside the company, quality improvement of products and processes (e.g. efficiency, performance, power consumption), potential for subsequent sustainable partnership, potential for enabling new products, expected impact on the business and profits of the company.

Maximum length in proposal: 1 page

Score: 1-5

Threshold: 3

Weight: 2

Transfer concept, objectives and work plan

Describe the background, such as the possible patent applications or granted patents on the technology and the maturity of the technology, the type of actions, e.g., exclusive purchase, non-exclusive licensing of (what?) rights, transfer of knowledge, development of prototypes, proof-of-concept, transfer of software copyrights, etc.

TTPs should revolve around transferring EXISTING Intellectual Property (IP) into industry rather than developing new IP during the project.

Identify the main objectives and lay out a work plan for achieving them. Specify what is done by the university and what by the company partner.

Please assess the readiness level of the technology to be transferred according to the following definitions and provide a short justification for your assessment

TRL 1 Basic principles observed and reported: Transition from scientific research to applied research. Essential characteristics and behaviors of systems and architectures. Descriptive tools are mathematical formulations or algorithms.

TRL 2 Technology concept and/or application formulated: Applied research. Theory and scientific principles are focused on specific application area to define the concept. Characteristics of the application are described. Analytical tools are developed for simulation or analysis of the application.

TRL 3 Analytical and experimental critical function and/or characteristic proof-of-concept: Proof of concept validation. Active Research and Development (R&D) is initiated with analytical and laboratory studies. Demonstration of technical feasibility using breadboard or brassboard implementations that are exercised with representative data.

TRL 4 Component/subsystem validation in laboratory environment: Standalone prototyping implementation and test. Integration of technology elements. Experiments with full-scale problems or data sets.

TRL 5 System/subsystem/component validation in relevant environment: Thorough testing of prototyping in representative environment. Basic technology elements integrated with reasonably realistic supporting elements. Prototyping implementations conform to target environment and interfaces.

TRL 6 System/subsystem model or prototyping demonstration in a relevant end-to-end environment: Prototyping implementations on full-scale realistic problems. Partially integrated with existing systems. Limited documentation available. Engineering feasibility fully demonstrated in actual system application.

TRL 7 System prototyping demonstration in an operational environment: System is at or near scale of the operational system, with most functions available for demonstration and test. Well integrated with collateral and ancillary systems. Limited documentation available.

TRL 8 Actual system completed and "mission qualified" through test and demonstration in an operational environment: End of system development. Fully integrated with operational hardware and software systems. Most user documentation, training documentation, and maintenance documentation completed. All functionality tested in simulated and operational scenarios. Verification and Validation (V&V) completed.

TRL 9 Actual system "mission proven" through successful mission operations: Fully integrated with operational hardware/software systems. Actual system has been thoroughly demonstrated and tested in its operational environment. All documentation completed. Successful operational experience. Sustaining engineering support in place.

Maximum length in proposal: 1 page

Score: 1-5

Threshold: 3

Weight: 1

Resources and budget

Human resources to be allocated to carry out the work. Possible other resources needed and their availability. Justification of other direct costs than salaries. Contributions of the company partner financially and/or as “in kind” efforts.

Calculate the project costs at the university, assuming:

Salary costs incl. social overheads

necessary travel

purchase of materials and consumables, and

7% general overhead on the above costs.

All the costs need to be eligible costs as per EU FP7 project rules, e.g., no value added tax included.

Maximum length in proposal: 0.5 pages

Score: 1-5

Threshold: 1

Weight: 1

Partner profiles

Capabilities of the partners to carry out the transfer, their track record on previous technology transfer activities or other collaboration, and the match between the technology provided and the company profile.

Maximum length in proposal: 0.5 pages

Score: 1-5

Threshold: 3

Weight: 1

TTP proposal selection and granting rules:

The TETRACOM Steering Committee (SC) will check all incoming proposals for eligibility. The eligible proposals will be evaluated by a sufficient number of independent experts, who will be appointed by the SC for each TTP call, By default, each proposal shall be reviewed by two independent experts, normally involving one academic and one industrial expert. The independent experts will, after signing an NDA, evaluate the proposals remotely w.r.t. the above criteria and will report their results to the SC. The SC will prepare a ranking list of proposals according to their total weighted average scores. Proposals with a sub-threshold score in at least one criterion after averaging the individual reviewer scores will be excluded.

In case of ties, the following secondary ordering criteria shall apply:

1. Higher average score on “Impact”

2. Higher average score on “Soundness of concept” (concept, objectives, work plan)

3. TTP involves a new EU member state

4. TTP involves an SME

Finally, the SC will decide on the funding level for each proposal in top-down fashion according to the ranking list. Proposals will be assigned budgets and will be accepted until the total call budget is exhausted. The budget assignment by the SC will be guided by the evaluation results but can be adapted according to necessities.

Annex C – 2nd call TTP proposal form

TETRACOM TTP Proposal

Please consult the instructions before completing this proposal form

Call deadline: 31/12/2014

Administrative data

Project title

Project duration (months) and preferred project start date

Requested TETRACOM funding to the university beneficiary (EUR)

Matching industry partner funding (EUR) and type (cash / manpower)

Applicant organization (university beneficiary)

Organization name Department Address Country VAT nr. PIC code	

Contact person (Scientist in charge at the university)

Last name, first name Telephone E-mail	

Technology transfer company partner name

Company partner legal entity established in (city, country)

Bilateral contract on technology transfer between the university and company

☐ Has been signed (date):

☐ Will be signed approx. by (date):

TETRACOM may announce the technology transfer

☐ Once the funding has been approved ☐ At the end of the funding period when the compulsory public abstract is due

Technology transfer plan

Expected impact

(max. 1 p.)

Transfer concept, objectives and work plan

(max. 1 p.)

Please assess the readiness level of the technology to be transferred, also providing a short justification of your assessment: 1 ☐; 2 ☐; 3☐,4 ☐; 5 ☐; 6☐; 7 ☐; 8 ☐; 9 ☐

Resources and budget

(max. ½ p.)

Partner profiles

(max. ½ p.)

Annex D – 2nd TTP call submitted proposals overview

ID	Project Name	Duration (months)	Coordinator	Contact	Research Center	Country	Company	Country	Requested Funding (€)	Matching funding (€)	Type
1	Contactless smart MEMS-based piezo-resis,ve sensor (COSMOS)	9	Marin Marinov	marin.marinov@epu.bg	European Polytechnical University (EPU), Communication and computer technology	Bulgaria	AMG-Technology Ltd.	Bulgaria	13.000,00	13.000,00	Manpower
2	DAEDALUS based architectures for smart LED ligh-ng control systems (DAEDALED)	10	Peter Yakimov	pij@tu-sofia.bg	Technical University of Sofia, Dept. Electronics	Bulgaria	LeaderLight Bulgaria Ltd.	Bulgaria	14.600,00	14.600,00	Manpower
3	Flexible WSN (Flexible, ultra-low-power and easy-to-use Wireless Sensor Network)	5	Norbert Wehn	wehn@eit.uni-kl.de	University of Kaiserslautern, Department of Electrical and Computer Engeering	Germany	Asandoo GmbH	Germany	22.344,00	24.000,00	Manpower
4	Gesture Detection On-Loading for Next Generation Sensor Subsystems (GDO-NGS2)	12	Christian Haubelt	christian.haubelt@uni-rostock.de	University of Rostock, Institute of Applied Microelectronics and Computer Engineering	Germany	Bosch Sensortec GmbH	Germany	37.844,00	37.844,00	Cash
5	MoDriC Application of a Model Driven based Customer Energy Manager framework	6	Gianluigi Proserpio	gianluigi.proserpio@rse-web.it	Ricerca sul Sistema Energetico - RSE SpA, T&D Technologies	Italy	Energy@home Associa(on	Italy	25.000,00	25.000,00	Cash
6	Exploitation of Ontological Software architectures (EOS)	9	Alessandro Fantechi	alessandro.fantechi@unifi.it	Università degli studi di Firenze, Dip. Informatica	Italy	COMESA s.r.l.	Italy	21.000,00	21.000,00	Manpower
7	SSDExplorer: a tool for SSD and NVRAM disks design	6	Piero Olivo	piero.olivo@unife.it	Università degli Studi di Ferrara, DiparSmento di Ingegneria	Italy	PMC-Sierra	Italy	28.120,00	35.000,00	Cash
8	Using Accelerator Technologies in Graph Parallel Applications	12	Ozcan Ozturk	ozturk@cs.bilkent.edu.tr	Bilkent University, Computer Engineering	Turkey	Intel Corporation	USA	30.000,00	58.000,00	Cash
9	Production of plAsmonic Sensors integrated with Microfluidic PLatforms for detectiON of residual Antibiotics in milk, PAMPLONA	9	Giovanna Brusatin	giovanna.brusatin@unipd.it	INSTM - University of Padova, Industrial Engineering	Italy	Si 14 SpA	Italy	25.000,00	25.000,00	Manpower
10	Video-based Soft Sensors for Traffic Safety (ViBaST)	10	Stanislav Kovačič	Stanislav.Kovacic@fe.uni-lj.si	University of Ljubljana, Faculty of electrical engineering, Machive vision laboratory	Slovenia	Intermatic d.o.o.	Slovenia	20.758,00	12.000,00	Cash
11	OPTIGLASS: Application of Artificial Intelligence-based techniques for optimizing the continuous Glass Cutting Problem	9	Miguel Salido	msalido@dsic.upv.es	Universitat Politecnica de Valencia, Instituto de Automatica e Informa.ca Industrial	Spain	AGC FLAT GLASS IBERICA, S.A.	Spain	11.988,28	7.068,28	Cash
12	Low power miniaturized contact-less BIOimpedance Measurement Device - BIOMeD	12	Franc Novak	franc.novak@ijs.si	Institut Jozef Stefan, Computer Systems Dept	Slovenia	Hyb, proizvodnja hibri dnih vezij, d.o.o.	Slovenia	25.000,00	8.500,00	Cash
13	Process pArameters INspection of Tridimensional biocompatibIE Resist microstructuring PAINTER	9	Giovanna Brusatin	giovanna.brusatin@unipd.it	INSTM - University of Padova, Industrial Engineering	Italy	Nanoscribe GmbH	Germany	25.000,00	25.000,00	Manpower
14	ENRICH: Providing richer search environments for search engines	12	Josep Lluis, Larriba-Pey	larri@ac.upc.edu	Centre d'Innovació i Tecnologia, Universitat Politècnica de Catalunya, DAMA-UPC	Spain	Spar sity S.L.	Spain	25.795,00	41.000,00	Manpower
15	L4Re Predictable Runtme Environment (L4-P-Re)	6	Kai Lampka	kai.lampka@it.uu.se	Uppsala Universitet, Dept. Information Technology	Sweden	Kernkonzept GmbH	Germany	34.186,02	35.310,00	Manpower
16	Mobile platform for real-time sonification of movements for medical rehabilitation	12	Holger Blume	blume@ims.uni-hannover.de	Leibniz Universitaet Hannover, Ins(tute of Microelectronic Systems	Germany	MediTECH Electronic GmbH	Germany	35.000,00	50.000,00	Cash
17	Analyzer of Module Electroluminescence Patterns (AMEP)	10	Ignacio Anton	nacho@ies-def.upm.es	Universidad Politécnica de Madrid (UPM), Instituto de Energía Solar (IES)	Spain	Solar Added Value (SAV)	Spain	33.930,54	33.930,54	Cash
18	cTuning-powered web service for enabling high-performance and energy-efficient specialized software for mobile markets	9	Grigori Fursin	Grigori.Fursin@cTuning.org	CTUNING FOUNDATION	France	DIVIDITI LIMITED	UK	73.000,00	73.000,00	Manpower
19	KLEESPOT : trends and brand social media impact detection	12	Athina Vakali	avakali@csd.auth.gr	Aristotle University of Thessaloniki, Dept. Informatics	Greece	Kleemann	Greece	50.000,00	50.000,00	Manpower
20	DIVINE: Design and optImization of multicast/broadcast Video streaming servIces in broadbaNd nEtworks	9	Gennaro Boggia	gennaro.boggia@poliba.it	POLITECNICO DI BARI, Dep. of Electrical and Information Engineering (DEI)	Italy	Telecom Italia S.p.A	Italy	20.000,00	20.000,00	Cash
21	IP DIME: Image Processing to Detect Hidden Defects in Manufactured Electronics	12	David harvey	d.m.harvey@ljmu.ac.uk	Liverpool John Moores University, General Engineering Research Ins7tute	UK	Delphi Electronics and Safety	Germany	33.259,00	87.949,00	Manpower
22	TDR for Interface MEasurements (TIMe)	6	Nicola Giaquinto	nicola.giaquinto@poliba.it	Politecnico di Bari, Dipartimento di Ingegneria Elettrica e dell'Informazione (DEI)	Italy	LPT Measure s.r.l.	Italy	34.240,00	35.000,00	Manpower
23	VALCOM - Virtualization less AUTOSAR and Linux Co-Location on homogenous Multicore Systems	6	Joern Schneider	j.schneider@hochschule-trier.de	Trier University of Applied Sciences, Computer Science	Germany	ArcCore AB	Sweden	18.796,00	18.816,00	Manpower
24	WiSeer: Predicting Symptomatic Crisis via Wireless Monitoring	9	Jose Ayala	jayala@ucm.es	Complutense University of Madrid, Computer Architecture - DACYA	Spain	M2C Solutions	Spain	25.000,00	60.000,00	Manpower
25	Numerical based PN junction prototyping of semiconductor devices (NumPN)	10	Gregor Kosec	gkosec@ijs.si	Jožef Stefan Institute, Department of Communication Systems	Slovenia	Diotec Semiconductor d.o.o. (DIOT EC)	Slovenia	35.000,00	36.060,00	Manpower
26	Systems and Monitoring Apparata based on Reflectometric Techniques for Agricultural aPPlications (SMART_APP)	6	Andrea Cataldo	andrea.cataldo@unisalento.it	Università del Salento, Department of Engineering for Innovation	Italy	Sysman Progetti & Servizi S.R.L.	Italy	35.000,00	35.000,00	Manpower
27	User and Big Data Management on Gamification (OPENET)	6	Manuel Lama Oenin	manuel.lama@usc.es	Universidade de Santiago de Compostela, Centro Singular de Investigación en Tecnoloxías da Información	Spain	GAMELEON GAMIFICATION BUSSINESS ACTIVITIES	Spain	13.375,00	17.000,00	Manpower
28	Home Health Smart TV Mobile Service (HHS)	8	Mario Kovac	mario.kovac@fer.hr	Faculty of electrical engineering and computing, University of Zagreb, Department of control and computer engineering	Croatia	Vipnet d.o.o.	Croatia	10.700,00	11.000,00	Cash
29	Wearable Multifunctional Body Sensor (MedSens)	6	Roman Trobec	roman.trobec@ijs.si	Jožef Stefan Institute, Department of Communication Systems	Slovenia	iMe (provisional name, company in the establishment phase)	Slovenia	29.113,00	20.000,00	Cash
30	SIMEON FORECAST: Geoportal for long term statistical characterization of coastal areas with shallow waters	10	Ramon Doallo	ramon.doallo@udc.es	University of A Coruña (UDC), Computer Architecture Research Group (GAC-UDC)	Spain	INCAT INFRAESTRUCTURAS, S.A.	Spain	42.051,00	42.479,00	Manpower
31	GreenTips: competitive profiling algorithms for energy saving in new generation domestic appliances and end-user awareness.	5	Davide Brunelli	davide.brunelli@unitn.it	University of Trento, Department of Industrial Engineering	Italy	Indesit company Spa	Italy	35.000,00	35.000,00	Manpower
32	SemBoost: order-of-magnitude performance Boost for a leading Semantic engine	10	Marko Bertogna	marko.bertogna@unimore.it	University of Modena, Dipartimento di Scienze Fisiche, Informatiche e Matematiche	Italy	Expert System s.r.l	Italy	30.000,00	40.000,00	Cash
33	ENERGY-NILM: a Non Intrusive Load Monitoring Algorithm for advanced metering systems	5	Davide Brunelli	davide.brunelli@unitn.it	University of Trento, Department of Industrial Engineering	Italy	ESA Energy srl	Italy	32.000,00	32.000,00	Manpower
34	PROTO_CVS_CER_QC- Prototype of Computer Vision Station in Ceramic Tiles Quality Control	10	Zeljko Hocenski	zeljko.hocenski@eCos.hr	University Josip Juraj Strossmayer in Osijek, Faculty of Electrical Engineering	Croatia	Keramika Modus d.o.o.	Croatia	20.000,00	20.000,00	Manpower
35	REAL GRADE	9	Giovanni Sta	giovanni.stea@unipi.it	University of Pisa, Dipartimento di Ingegneria dell'Informazione	Italy	Telecom Italia	Italy	25.414,00	30.000,00	Cash
36	Advanced Computational Drug Discovery Technologies using High Performance Computing Architectures (ACDDT-HPC)	12	Horacio Perez-Sanchez	hperez@ucam.edu	Universidad Católica San Antonio de Murcia, UCAM, Bioinformatics and High Performance Computing Research Group, Computer Science Department	Spain	Arficial Intelligence Talentum	Spain	22.744,90	25.035,40	Manpower
37	TEchnology Transfer for RFID Assessment in Fish Supply cHain - TETRAFISH	10	Luca Catarinucci	luca.catarinucci@unisalento.it	University of Salento, Department of InnovaSon Engineering	Italy	DEMAR srl	Italy	35.000,00	35.000,00	Manpower
38	RetroWindFD – Retrofitting wind turbine PLC infrastructure with fault detection and identification functionality	12	Manfred Mucke	Manfred.muecke@mcl.at	Materials Center Leoben Forschung GmbH	Austria	e von GmbH	Austria	30.000,00	10.000,00	Cash
39	Automatic parallelization of sequential programs for accelerators (ParAccWare)	8	Manuel Arenaz	manuel.arenaz@udc.es	University of A Coruña (UDC), Department of Electronics and Systems	Spain	Appentra Solu'ons S.L.	Spain	22.769,60	22.769,60	Manpower
40	FER Home Health Smart TV Integration in eHealth clients (FHTV)	8	Mario Kovac	mario.kovac@fer.hr	Faculty of electrical engineering and computing, University of Zagreb, Department of control and computer engineering	Croatia	MCS Grupa d.o.o.	Croatia	18.725,00	19.000,00	Manpower
41	PERSIMMON ProactivE woRkload diSpatcher for high perforMance coMputers jOb scheduliNg	12	Andrea Bartolini	a.bartolini@unibo.it	University of Bologna, ERC Advance MULTITHERMAN laboratory	Italy	CINECA	Italy	25.000,00	25.000,00	Cash
42	UC4BP: Ubiquitous Computing for Behaviour Patterns	9	Ezequiel Herruzo	eze@uco.es	University of Córdoba, Computer Architecture and Electronics	Spain	AMMA GEROGESTIÓN S.L.	Spain	29.275,20	35.112,06	Cash
43	WEPA – Wearable Parkinson Assistant	12	William Fornaciari	william.fornaciari@polimi.it	Politecnico di Milano, DiparÓmento di Ele ronica, Informazione e Bioingegneria	Italy	Intelligenc e Behind Things (IBT) Solu0ons Srl	Italy	30.000,00	70.000,00	Manpower

IMPACT CRITERIA	DESCRIPTION	OUTCOME		SUPPORTING MATERIAL
		Quantitative (if applicable)	**Textual** (details, comments)	(if applicable)
Dissemination and exploitation				
(01) Scientific journals and conferences	Academic journals and international conferences with formal proceedings			
(02) Other scientific communications	Workshop presentations, invited talks, seminars, posters			
(03) Dissemination in professional publications and venues	Participation to trade shows, press communication			
(04) Contributions to standards	Planned or effective, including participation to standardization committees			
(05) Exploitation as/with free and open source software (FOSS)	Integration into FOSS platforms, contributions to FOSS platforms, contribution of FOSS components			
(06) Patents	Filing, pending, enforced, extension, licensees			
Training				
(07) Education and training	Tutorials, course material, education, outreach to the public, professional training programs			
(08) Knowledge adoption and users inside the partner company	Nature of the knowledge being adopted, and type and total number of users of the transferred technology			
Technology adoption				
(09) Quality improvement of products and processes	E.g., productivity, performance, non-functional properties and metrics, cost, and impact on the TRL of these products (if applicable)			
(10) Exploitation of technology in existing products of the partner company	Technology and knowledge exploited in existing products of the company			
(11) Adoption of knowledge and technology in internal processes	Technology and knowledge exploited for internal purposes of the company, and impact on the TRL of the internal tools (if applicable)			
Direct business impact				
(12) Anticipated sales	Measurable and expected impact on the commercial acticity of the company (if applicable)			
(13) Investment attractivity	Effective and expected impact on the company's ability to attract new Investments and investors			
Longer term impact				
(14) Potential for enabling new products	Beyond the improvement of existing products and processes			
(15) Impact on the company's human resources	Students and engineers hired by the company as a byproduct of the technology transfer, and effective or planned job creations			
(16) Users in third parties	Type and total number, outside the company and academic partner			
(17) Potential for enabling subsequent TTPs	Exploitation of the results of the partners through future R&D or technology transfer projects			
(18) Potential for subsequent Sustainable partnership	E.g., new positions offered, new research challenges, new innovation opportunities, exchange of personnel, joint activities			
(19) Potential for startup company foundation	Does the transferred technology have sufficient potential for a separate startup company in the long term? (Only in exceptional cases)			
Impact on the academic group				
(20) Impact of the TTP on the maturity level of the academic group's prototypes	Self-assessment of the TRL of the tools prior and after the TTP, of the impact and opportunities in terms of follow-up research and development			
(21) Impact of the TTP on the visibility and strategy of the academic group	Post-TTP successes of the academic group in terms of research activities and results, funding applications, and transfer successes			
Tracing the impact of research funding from basic research to TTPs				
(22) Relation with past research, development or technology transfer project	To measure the impact of *past* funding and trace the maturation of technology, please describe the relation with previous grants related to the completed TTP			

Annex F - Project Schedule Overview

The table below summarizes all major project deliverables, milestones, and events. Activities in green have been already completed. Activities in yellow are about to be completed soon or are currently in the planning phase. At this point, no major deviations from the original work plan specified in the DoW are foreseen.

item	month	due date	responsible
project start	1	Sep, 2013	RWTH
kickoff meeting	1	Sep, 2013	all
SC physical meeting 1	1	Sep, 2013	RWTH
D2.5: Kickoff press release	3	Nov, 2013	UGENT
TETRACOM WWW online	3	Nov, 2013	UPISA
MS1: Call for TTPs 1	6	Feb, 2014	TUT
TT workshop 1	6	Feb, 2014	TUD
Newsletter 1	6	Feb, 2014	UGENT
D4.1: Periodic project report 1	8	Apr, 2014	RWTH
D2.1: TTI report 1	9	May, 2014	UGENT
TTP granting call 1	9	May, 2014	UEDIN
Review 1	9	May, 2014	all
D3.1-x: Initial TTP abstracts	12	Aug, 2014	all
MS4: IAB meeting 1	12	Aug, 2014	INRIA
TT workshop 2	12	Aug, 2014	TUD
Newsletter 2	12	Aug, 2014	UGENT
SC physical meeting 2	13	Sep, 2014	RWTH
MS2: Call for TTPs 2	15	Nov, 2014	TUT
D1.1: TTP calls statistics 1	18	Feb, 2015	UEDIN
D2.2: TTI report 2	18	Feb, 2015	UGENT
D4.2: Periodic project report 2	18	Feb, 2015	RWTH
TTP granting call 2	18	Feb, 2015	UEDIN
TT workshop 3	18	Feb, 2015	TUD
Newsletter 3	18	Feb, 2015	UGENT
D1.3: TTP impact report 1	18	May 2015	INRIA
Review 2	21	May, 2015	all
D2.4: TETRACOM main workshop	24	Aug, 2015	UGENT
MS3: Call for TTPs 3	24	Aug, 2015	TUT
MS5: IAB meeting 2	24	Aug, 2015	INRIA
TT workshop 4	24	Aug, 2015	TUD

Newsletter 4	24	Aug, 2015	UGENT
SC physical meeting 3	25	Sep, 2015	RWTH
TTP granting call 3	27	Nov, 2015	UEDIN
TT workshop 5	30	Feb, 2016	TUD
Newsletter 5	30	Feb, 2016	UGENT
D1.2: TTP calls statistics 2	36	Aug, 2016	UEDIN
D1.4: TTP impact report 2	36	Aug, 2016	INRIA
D1.5: TETRACOM white paper	36	Aug, 2016	all
D2.3: TTI report 3	36	Aug, 2016	UGENT
D2.6: Final press release	36	Aug, 2016	UGENT
D3.x-3.y: New TTP abstracts	36	Aug, 2016	new partners
D4.3: Periodic project report 3	36	Aug, 2016	RWTH
MS6: IAB meeting 3	36	Aug, 2016	INRIA
TT workshop 6	36	Aug, 2016	TUD
Newsletter 6	36	Aug, 2016	UGENT
Review 3	38	Oct, 2016	all