



Technology Transfer in Computing Systems

D1.2: TTP EoI calls statistics 2

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Summary

This report describes the outcomes of the third and final TETRACOM call for Technology Transfer Projects (TTPs). There were 33 proposals compared to 30 in the first call and 43 in the second. The applicants were from 13 different countries within Europe and involved 25 SMEs. All projects were reviewed by independent external reviewers drawn equally from academia and industry. The projects were ranked based on the reviewers scores and were used by the SC to make the final decision on what projects were to be funded. The key issue in determining successful projects appears to be the transfer concept. This is in contrast to previous calls where adequate planning/resources and the partner were more significant. 16 projects in total were awarded.

Introduction

This document provides statistics and analysis for the final TTP call in TETRACOM. It first outlines the updated review process for the call and then summarizes the characteristics of the applications. This is followed by an analysis of the review results and overall process.

Selection of reviewers

A key issue is the selection of reviewers. For credibility and transparency, it was important that the reviewers be external to TETRACOM. At the start of the project each partner was tasked with recruiting 6 external reviewers. Different reviewers were used in the first two calls and the quality of their reviews monitored. The best performing reviewers were recruited for the final call.

Based on the need to improve the review process the number of reviews per application was increased to three. In addition, to keep the work load manageable and ensure that the reviews could be produced in a short time frame, the number of reviewers was increased to nine. Each reviewer was allocated 11 applications to be completed by early November 2015. Each reviewer was paid 500 euros provided high quality reviews were delivered .

Third Call

The following persons, operating under NDA, served as evaluators.

- Heiko Falk, University of Ulm, Germany
- Bernd Janson, Zenit GmbH, Germany
- Frank Gielen, Intec, Belgium
- Stanislas De Vocht, Iminds, France
- John Goodacre, Product Marketing, ARM
- Siegfried Benkner, Professor, TU Vienna
- Francois Bodin, CTO CAPS-Enterprise, Professor INRIA
- Axel Jantsch, Professor, KTH
- Colin Adams, Commercialisation Director, Uni Edinburgh

Reviewing process

Third TTP call

The third and final call for TTP proposals has been published on Aug 15, 2015 with the submission deadline set to Sep 15, 2015. The process for the third call again incorporated the recommendation from the 1st review meeting (May 2014, Barcelona) that was as follows:

1. **Consider excluding the core consortium from the open TTP calls.**

Kommentar [EH1]: Ist diese Überschrift korrekt?

This recommendation concerned the appearance of transparency and fairness of TETRACOM. No existing partner from the core consortium was allowed to submit a proposal into the second call.

The most significant change for TTP call 3 was in the managing of the review process. The overall aim was to improve the quality of reviewing and to increase robustness of ranking by increasing consensus

During the project reviews, the reviewers were concerned about the robustness of the proposals reviewers. Previously each reviewer completed a review, selecting a grade for each of the published criteria. These grades were then collated and a rank produced. While this process was managed in a timely and secure fashion there were only 2 reviews per proposal and no interaction between reviewers once they had made their initial reviews preventing any discussion, peer-review of comments and consensus building. This lack of interaction was partly due to the proposal management system used for proposal submission.

Based on review feedback the following decisions and actions were made:

1. Increase the number of reviewers to 3 per proposal, increase workload per reviewer and pay each 500 euros as an inducement.

Increased reviews will reduce score volatility and outlier effects. Payment based on sufficient quality of review should incentivize the reviewers.

2. Use the EasyChair programme committee website to manage the entire review process

The previous software was excellent as a submission site but ill-suited to collaborative discussion amongst reviewers. EasyChair is precisely designed for discussing the merits and ranking of proposals.

3. After making an initial review, each reviewer should see all other related reviews, allowing the opportunity to record an updated review

It is important that reviews are initially done in isolation to guarantee fair and independent review.

Otherwise a time-pressured reviewer could follow the crowd, giving consensus at the expense of fairness. Oversight by others ensures that reviewers try to write a fair review. Knowing that someone you respect will read your review encourages high quality reviews. Access to other reviews allows errors in a review to be picked up and adjusted.

4. To highlight divergence of opinion, each reviewer was asked to grade on a -2 to +2 whether or not the proposal should be accepted

The previous collated ranking scheme makes focus discussion difficult as small grade distinctions across multiple criteria are hard to drive a discussion. Having strong acceptance versus strong rejection as summary allows easy identification.

5. After all reviews were submitted, any divergence was detected and the reviewers contacted and asked to discuss in a forum setting their reasons for divergence

Having the EasyChair paper specific forum allows the tracking and auditing of discussions. It allowed the chair (Michael O'Boyle) to initiate discussions and encourage a conclusion. Approximately, two thirds of the proposals had consensual reviews leaving 10 papers which received considerable discussion.

6. The reviewers were then requested to consider updating their reviews in light of discussion

3 reviews were updated after discussion in each case increasing consensus.

7. All reviewers were finally asked to look at the entire ranking and highlight anomalies

This was a final sanity check and by this stage there were no further changes need.

8. Provisional ranking sent to PO

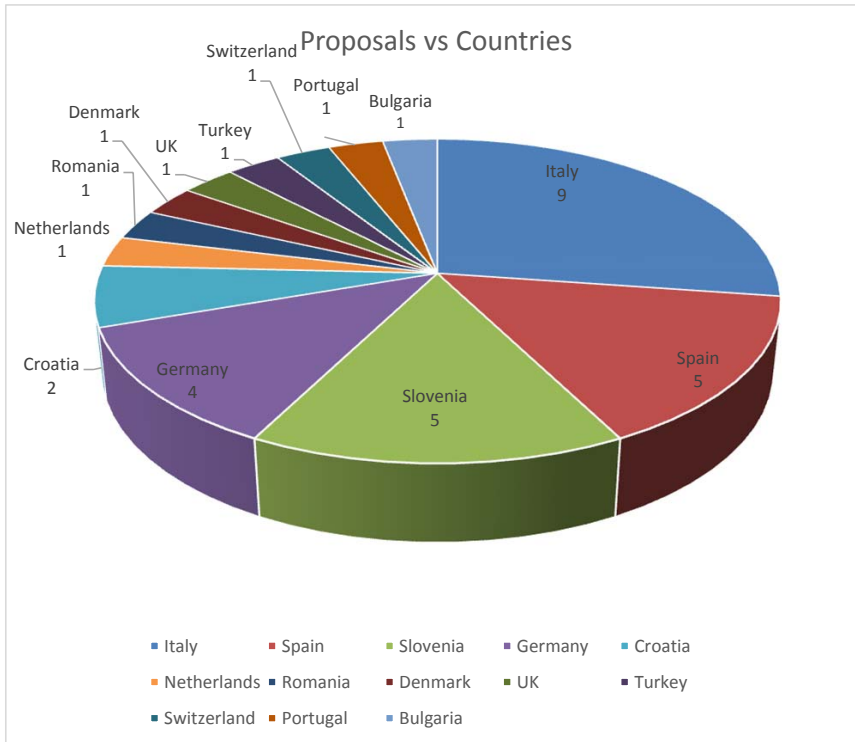
This was performed as requested.

This process exploits the experience gathered from many years of managing fair programme committee meetings. It allows the focusing of energy on proposals where there is a divergence of opinion. It does not eliminate differences of opinion as there are always cases where experts do not agree! However, it did allow all proposals to be fully discussed in a scalable manner and lead to a robust overall ranking.

Once again, the proposals were forwarded to the SC who followed the ranking of the reviewers. Applicants were informed of the outcomes by email. For those proposals that were unsuccessful, they were contacted by Imperial who used the reviewer public and private comments to explain why their proposal failed and how it could be improved in future. Unlike previous occasions there has been little debate on the outcome and it seems that applicants are happy with the process.

Analysis of applications

A total of **33 TTP proposals** have been submitted for TTP call 3 by the deadline via the new online submission platform. 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 and 2 are given in brackets. Comments are given in case of significant changes.



- The academic proposers originate from 13 [12; 13] different European countries (see chart below), 13 [11; 12] of which are EU countries.
- The company partners are distributed over 15 [11; 10] countries, 13 [10; 9] of which are EU countries.
- 25 [32; 14] proposals involve SME company partners.
- 9 [9; 3] proposals come from new EU member states (Bulgaria, Croatia, Romania and Slovenia).
- The requested TTP funding from TETRACOM is between 5k [11k; 15k] and 45k [73k; 78k] EUR, with an average of approx. 27k [28k; 30k] EUR.
- The matching company funding is between 5k [7k; 4.5k] and 45k [70k; 170k] EUR, with an average of approx. 27k [32k; 27k] EUR.
- The total requested funding is approx. 972k [1.2M; 924k] EUR, the total matching company funding is approx. 1.0M [1.4M; 1.1M] EUR.
- The average proposed TTP duration is 7.3 [9; 8.6] months.
- 11 [19; 10] of the academic TTP proposers are HiPEAC members. 2 [3; 6] of the submitted project proposals involve company partners that are linked to HiPEAC.

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

- The number of proposals involving SMEs remained very high (76% in call 3).
- There is a broad coverage of EU countries in general.
- The mobilization of new EU member states remained high as well.
- Other key data, e.g. requested funding and matching industry funding, remained stable, indicating that the TTP concept is well understood and established in the community.

As a result, the following 16 proposals were accepted:

TTP no.	Name/Partner	Country	Duration	EC contribution
34	Mario Kovac University of Zagreb	HR	7 months	€29,193.00
35	Alastair Donaldson Imperial College of Science, Technology and Medicine	UK	5 months	€30,132.27
36	Paul Pop Technical University of Denmark	DK	6 months	€44,998.00
37	Martin Leucker University of Lübeck	DE	6 months	€29,748.00
38	Adrian Ionescu École polytechnique fédérale de Lausanne	CH	7 months	€40,018.00
39	Janez Pers University of Ljubljana	SI	6 months	€11,331.30
40	Jeronimo Castrillon Technische Universität Dresden	DE	6 months	€29,499.00
41	Andrea Cataldo University of Salento	IT	6 months	€34,989.00
42	Gregor Kosec Jozef Stefan Institute	SI	7 months	€30,478.95
43	Guillermo Paya-Vaya Gottfried Wilhelm Leibniz Universität Hannover	DE	7 months	€24,999.48
44	Silviu Folea Technical University of Cluj-Napoca	RO	6 months	€24,999.00
45	Norbert Wehn University of Kaiserslautern	DE	6 months	€29,885.10
46	Luca Catarinucci University of Salento	IT	7 months	€36,701.00
47	Marin Marinov European Polytechnical University	BG	7 months	€13,000.00
48	Franc Novak Institut Jožef Stefan	SI	7 months	€25,000.55
49	Zeljko Hocenski University Josip Juraj Strossmayer in Osijek	HR	7 months	€20,000.00

- Additionally, one outstanding “initial” TTP was started by IMPERIAL and their industry partner Corerain Technologies:

50	Wayne Luk Imperial College of Science, Technology and Medicine	UK	5 months	€25,000.00
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There was no overlap with previous awards. One of the successful applicants Marin Marinov applied in a previous call and was unsuccessful. After discussion and support from Imperial, he was able to improve the proposal and be successful.

Analysis of reviewers’ scores and recommendations

The overall average score for all reviews is 16.7 which is higher than for the first two calls 16.1 and 15.3 out of a possible 25. Given that the reviewers overlap, this suggests an increase in overall quality of proposals. This observation was anecdotally enforced by the comments which were generally more positive. However, given the small sample size, no formal conclusions can be drawn.

The average scores for each criteria across the calls is as follows:

- Expected impact 3.2
- Transfer concept 3.2
- Resources and Budget 3.3
- Partner Profiles 3.9
- Overall Score 16.8

For each criterion, the scores ranged across the full range from 1 to 5.

The overall scores ranged from 11 to 22.

For the successful projects the average scores were

- Expected impact 3.6
- Transfer concept 3.7
- Resources and Budget 3.6
- Partner Profiles 4.1
- Overall Score 18.8

For the unsuccessful projects the average scores were

- Expected impact 2.8
- Transfer concept 2.6
- Resources and Budget 2.9
- Partner Profiles 3.7
- Overall Score 14.9

In all categories the unsuccessful projects performed worse than the successful ones. The biggest differentiator between successful and unsuccessful projects is expected impact or transfer concept. This is in marked contrast to the previous two calls where budget and partner profiles were the key differentiator. On examining the text it seems that there are few applications from partners with no credible track record in TTP and insufficient matching funding from the industrial partner. Overall the gap between successful and unsuccessful has narrowed which may be partly due to regression towards the mean with a larger number of reviewers. However, it is certainly the case that the we received far fewer poor applications.

Examining the reviews more qualitatively, the following are some of the most frequent reasons for rejection

- An R&D project, not a TTP. No Technology to transfer
- Poor impact account
- Contract product development rather than TTP
- Immature technology
- Little involvement from company

Summary

Overall the TTP proposal, review and award process has been successful. Substantial changes have been made to the process between calls 2 and 3 and the review process improved. The overall quality of applications has improved with fewer poor proposals.