



Technology Transfer in Computing Systems

D2.2: TTI Report 2

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Table of Contents

Introduction	2
Task 2.1: TT workshops	3
TETRACOM presentation during the HiPEAC workshop in Croatia	3
TETRACOM presentation during the HiPEAC workshop in Slovenia.....	3
TETRACOM presentation during the MAD Workshop	4
Third Workshop on Transfer to Industry and Start-Ups (TISU).....	4
TTP poster session at HiPEAC2015.....	5
Task 2.2: Individual consultation service	7
Task 2.3: TETRACOM WWW	8
Task 2.4: Newsletter and press releases.....	9
Publishing articles in the HiPEAC newsletter and HiPEAC Newsmail	10
<i>Article in the HiPEAC Newsmail November 2014: “Call for Tech Transfer Awards 2015!”</i>	10
TETRACOM Newsletter	12
<i>TETRACOM Newsletter July 2014</i>	12
TETRACOM on Facebook	16
TETRACOM on Twitter	16
TETRACOM press release	20
TETRACOM covered in the press	20
Task 2.5: TETRACOM main workshop	21

Introduction

Without additional support activities, the more experienced TT players are likely to be favored by the TTP program. Therefore, several dedicated TTIs will be 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 will implement the following TTIs:

- *TT workshops (Task 2.1: lead partner TUD)*
- *Individual consultation service (Task 2.2: lead partner IMC)*
- *TETRACOM website (Task 2.3: lead partner UPISA)*
- *Newsletter and Press Releases (Task 2.4: lead partner UGENT)*
- *TETRACOM main workshop (Task 2.5: lead partner UGENT)*

In order to reach the widest possible European academia and industry community with the TTI offering, TETRACOM leverages the well-established HiPEAC Network of Excellence, in which various TETRACOM contractors play leading roles. On one hand, this concerns utilization of large-scale HiPEAC media like the newsletter or mailing lists. Moreover, several TTIs can be organized together with regular HiPEAC community events.

Task 2.1: TT workshops

Lead partner: TUD

Organization of semi-annual workshops with invited high-profile speakers from various domains relevant to TT (such as market analysts, consultants, VC representatives, company founders, industry managers with significant R&D background, experienced academic TT actors). The goal of TT workshops is to inform academic and industrial participants about TT basics such as creating opportunities, success stories, legal frameworks, market analysis, funding sources etc. The workshops will be organized as half-day events at various central European locations, possibly collocated with HiPEAC events. They will be open to the Computing Systems research community at large. Based on experiences with HiPEAC meetings, typical TT workshops are expected to attract around 50 participants. Each workshop will produce informal handouts to be distributed via the TETRACOM web site.

TETRACOM presentation during the HiPEAC workshop in Croatia

Title: Technology Transfer in Computing Systems: The TETRACOM Approach
Time: Tuesday 23 September 2014 during the HiPEAC Workshop at TU Zagreb
Organizers: Rainer Leupers and Koen De Bosschere

Motivation and objectives:

This session introduced the TETRACOM FP7 Project, which is tightly related to HiPEAC and is of interest to the entire HiPEAC community. It featured a project overview as well as examples of successful Technology Transfer.

Audience: Interested researchers from Croatian universities and companies.

TETRACOM presentation during the HiPEAC workshop in Slovenia

Title: Technology Transfer in Computing Systems: The TETRACOM Approach
Time: Thursday 25 September 2014 during the HiPEAC Workshop at Jozef Stefan Institute, Ljubljana
Organizers: Rainer Leupers and Koen De Bosschere

Motivation and objectives:

This session introduced the TETRACOM FP7 Project, which is tightly related to HiPEAC and is of interest to the entire HiPEAC community. It featured a project overview as well as examples of successful Technology Transfer.

Audience: The workshop attracted more than 40 attendants, PhD students and professors from Slovenian Universities, industrial and governmental representatives, users of

HPC and administrators of existing computing resources in Slovenia. The formal program was followed by person-to-person discussions on new upcoming ideas for future activities.

TETRACOM presentation during the MAD Workshop

Title: Introduction to Technology Transfer in Computing Systems
Time: Wednesday 8 October 2014 at the HiPEAC Computing Systems Week in Athens, Workshop on Multicore Application Debugging
Organizers: Rainer Leupers

Motivation and objectives:

Many outstanding research results from publicly funded research programs and PhD research do not find their way into commercial products and services. Most researchers in academia focus on dissemination of their research through scholarly publications and are not targeting commercialization of their results. TETRACOM wants to promote a new model of technology transfer in the domain of computing systems in Europe. It does this by creating incentives to encourage researchers to try actual technology transfer.

Audience: Tentative participating groups and/or projects: All CSW participants from academia and industry interested in Technology Transfer. The Computing Systems Week was attended by 211 participants.

Third Workshop on Transfer to Industry and Start-Ups (TISU)

Title: Third Workshop on Transfer to Industry and Start-Ups
Time: Tuesday 20 January 2015 at the HiPEAC 2015 Conference in Amsterdam
Organizers: Rainer Leupers, Koen De Bosschere and Koen Bertels

Motivation and objectives:

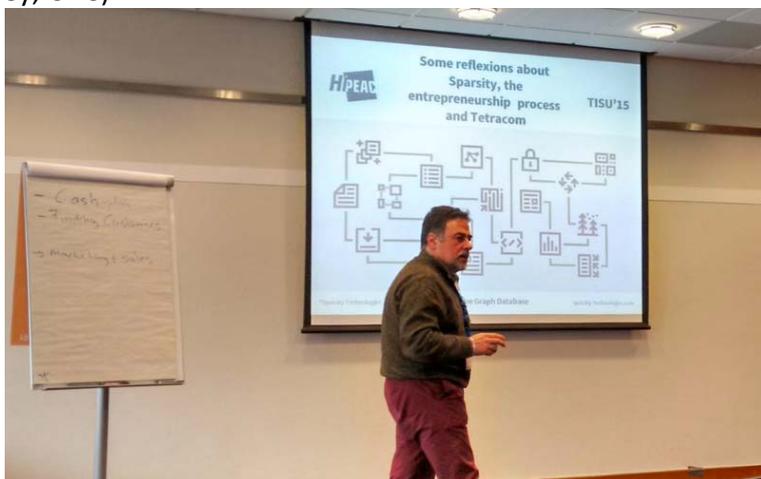
This workshop aimed at discussing means and ways to improve both the industry transfer as well as stimulating people to transfer their knowledge in business ideas and startups. Therefore, the workshop focused on two main topics:

- *Transfer to industry*: How can we improve the transfer of EU research results to industry? Are the existing schemes and organizations (Artemisia, Eniac, FP8) efficient and effective enough? What kind of research project organisations do we need? Etc.
- *Start-ups*: Why is the number of successful Start-ups in Europe not so high? When should one seriously consider going for start-up? What does it take to start a company? How do I start doing it? How can I minimize risks?

Audience: Tentative participating groups and/or projects and their contribution: All conference participants from academia and industry interested in Technology Transfer. In total, 631 people attended the HiPEAC Conference in Vienna.

Agenda:

- Introduction
- The TETRACOM Project (Rainer Leupers, RWTH Aachen University)
- Technology Transfer creates new IP Business (Uwe Wasenmüller, University of Kaiserslautern)
- EIT ICT Labs business development accelerator (Bram Spitzer, ICT-KIC)
- The experience of Sparsity and DAMA-UPC through Tetracom (Josep Lluís Larriba-Pey, UPC)



- cTuning - TETRACOM experience (Grigori Fursin, cTuning foundation France and Anton Lokhmotov, ARM UK)
- SOWISO, a commercial TU/e spin-off company operating in an academic world (Marc Habbema, SOWISO)

TTP poster session at HiPEAC2015

Title: Poster Session of all active and concluded TETRACOM TTPs
Time: Tuesday 20 January 2015 at the HiPEAC 2015 Conference in Amsterdam
Organizers: Rainer Leupers and Koen De Bosschere

Motivation and objectives:

Building dynamic economies that are based on the creative application of human knowledge is currently an aspiration all around the world. As part of this effort, Europe has been investing a lot of resources in different programs (e.g., FP7, ENIAC, ARTEMIS) to stimulate research and innovation. However, the impact of such programs on the overall European economy is still below the targets/expectations. For instance, the number of startups born from these

research programs still remains limited. By showing the results of the already successfully started TTP's, we want to stimulating people to transfer their knowledge in own business ideas and startups.

Audience: Tentative participating groups and/or projects: All HiPEAC2015 participants from academia and industry interested in Technology Transfer. The HiPEAC2015 Conference was attended by 631 participants.



Task 2.2: Individual consultation service

Lead partner: IMC

This service will complement the TT workshops in those cases, where highly specific or confidential TT issues need to be discussed among individuals. TETRACOM will utilize its network to allocate voluntary experts (either from inside the consortium or external) that can give limited, yet appropriate case-by-case advice (technical, managerial, and partially legal) wherever possible.

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 interaction between:

- **experts** with relevant expertise and experience who volunteer to support this service, and
- **users** seeking consultation with appropriate experts.

As of May 2014, there were 27 registered users, 22 of whom are experts. Since the number of users did not increase significantly and the benefits of this service were unclear, it was decided, after careful consideration, to replace this service by the following, which would bring greater value:

- **feedback service:** providing feedback to: (a) unsuccessful TTP applicants about why their proposal was not successful, and (b) draft proposals about how they can be improved. It is pointed out to potential users that this feedback is entirely independent of the review process.
- **Connection service:** providing connection to agencies or individuals engaged in technology transfer, so that such liaison would improve the quality and quantity of TTP applicants.

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.

Task 2.3: TETRACOM WWW

Lead partner: UPISA

A lean, focused web portal is maintained, serving two major purposes: First, to provide information about TETRACOM itself, and to manage its TTP Eol's, current TTI events, and internal documents. Second, to act as a TT broker that allows for posting concrete academic offerings and industrial requests within a centralized place, and matching supply and demand in a partially automated way. For this purpose, the web site will feature an online exchange forum.

The TETRACOM website www.tetracom.eu was set up at the start of the TETRACOM project. The website is frequently updated with news, downloadable material and general information in order to spread the awareness about the TETRACOM project. It was also used to manage the calls for proposals (i.e. proposer registration, proposal submission, reviewer selection and review submission) and for sharing private documents and deliverables among project partners.

As example of the traffic generated by the TETRACOM website, Figure 2 shows the number of users that visited the website in the period 1 May 2014 – 16 February 2015.

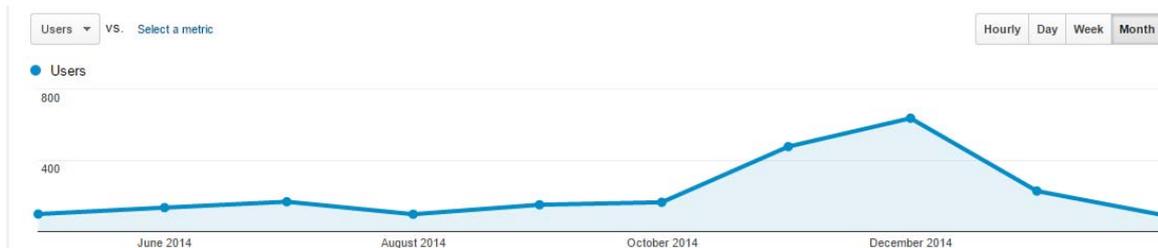


Figure 1 Number of users per month in the period 1 May 2014 - 16 February 2015.

Task 2.4: Newsletter and press releases

Lead partner: UGENT

This task has been implemented in a more dynamic way than described in the description of work. We want to promote the results of the project, and technology transfer in general, as widely as possible, and through multiple channels.

1. *Publishing articles in the HiPEAC newsletter and HiPEAC Newsmail*
2. *The TETRACOM newsletter*
3. *TETRACOM on Facebook*
4. *TETRACOM on Twitter*
5. *TETRACOM Press release*
6. *TETRACOM covered in the press*

Publishing articles in the HiPEAC newsletter and HiPEAC Newsmail

Article in the HiPEAC Newsmail November 2014: "Call for Tech Transfer Awards 2015!"

The HiPEAC newsmail November 2014 was sent out to the more than 1700 subscribers of the HiPEAC mailing list.

HiPEAC News November 2014

Dear HiPEAC member,

Horizon 2020 focusses on impact. Therefore, HiPEAC wants to encourage and help its members to transfer their research results to industry. This month, there are two calls that want to do just that: the call for **HiPEAC Technology Transfer awards** to celebrate successful transfers, and the **TETRACOM call for Technology Transfer Projects** by the FP7 project TETRACOM. Both are open to all HiPEAC members.

Koen De Bosschere



Call for Tech Transfer Awards 2015!

HiPEAC not only wants to encourage scientific excellence through publications in the HiPEAC award conferences, but also wants to stimulate the uptake of research results by industry. To reward and celebrate the transfer of research results into industry (be it through technology licensing or providing dedicated services to an existing company or through the creation of a new company), HiPEAC annually selects a number of members for a HiPEAC technology transfer award. For more information and applications, visit <http://www.hipeac.net/content/hipeac-technology-transfer-awards>. Submissions are welcomed until 24 November 2014.



The TETRACOM project launched the second call for Technology Transfer Projects (TTPs). Submit your TTP Proposals before 31 December 2014! Proposals selected for funding will be notified in February 2015. 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).

For more information and submission of projects, visit the [TETRACOM website](#).

TETRACOM Newsletter

TETRACOM Newsletter July 2014

The second TETRACOM Newsletter was sent out in July 2014 to the more than 1700 subscribers of the HiPEAC mailing list.

TETRACOM News July 2014

Dear colleague,

Most of us would probably agree that research breakthroughs after all require paper, pencil, and - most importantly - sufficient time and peace for scientific thinking, experimenting and taking risks. Within Horizon 2020, the incentive (or call it pressure) to take short-term impact, exploitation and industrial interest into account is clearly growing. So, why not just combine the best of both worlds?

TETRACOM offers you a blend of instruments that help to pave the way from excellent research results into industrial uptake, with its co-funded Technology Transfer Projects (TTPs) being the most prominent. The first TTPs have just been granted, and in this newsletter issue Mike O'Boyle reports some facts about the TTP Call 1 results. We hope this will encourage you to participate in our next TTP Call that will be launched in November. In case you first need more general tech transfer know-how, you are also invited to take part in one of TETRACOM's workshops, the next of which is anticipated for the HiPEAC CSW in October.

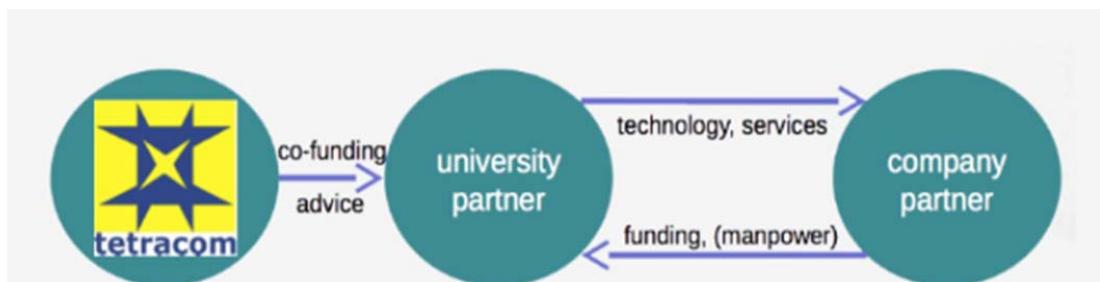
Having successfully passed the 1st project review, the TETRACOM team is highly motivated to work with you. I wish you an enjoyable summer break with lots of time for blue-sky thinking.



Yours,

Rainer Leupers

RWTH Aachen University



The first call for proposals was announced on 15 February with a submission deadline of 31 March 2014. Our aim was to make the submission process as lightweight as possible with a short, restricted word-length, online application process. Each proposal had to explain its expected impact, transfer concept, resources, budget and partner profile. If a technology transfer is compelling, it should be possible to communicate this succinctly.

We were delighted with the response; a total of 31 proposals were submitted from 13 different European countries. In total, the proposals requested 904k € from TETRACOM supported by 1.1M € matching funding from industry partners.

Each of the proposals was evaluated by 2 reviewers from an external panel of reviewers. In order to provide a balanced evaluation, one of the reviewers was selected from academia, the other from industry. Partners of TETRACOM were not involved in the initial reviewing process and were excluded from participating in the call.

The ranked proposals were then considered by the TETRACOM Steering Committee who selected 10 proposals for funding, subject to contractual agreement. A provisional budget of 338k € was allocated for the accepted proposals.

Mike O'Boyle

TETRACOM Consultation Service

The TETRACOM Individual Consultation Service is a new and open service that wants to connect researchers to registered experts in computing systems and related fields. The selected experts are committed to assist them on any matters related to technology transfer.

There is an example list of experts along with their brief biography, and a messaging service is available for researchers to communicate confidentially with experts. The service is free of charge and can be found at: <https://tetracom-service.doc.ic.ac.uk>

Consultation Service



Advisory Board

A first meeting with the TETRACOM Advisory Board has been planned on 19 September 2014 in Brussels. The board members are:

- Martijn Rutten, Vector Fabrics

TETRACOM Workshop

The next TETRACOM workshop will take place during the HiPEAC Computing Systems Week from 8 to 10 October 2014 in Athens. The program of the CSW will be available soon on <http://www.hipeac.net/csw/2014/athens>.



Call for Technology Transfer Projects

A second call for Technology Transfer Projects will be launched in November 2014. We hope this call will be even more successful than the first one! More information can be found soon on the website of the [Call for Projects](#).

- Matthias Weiss, Intel
- Tero Rissa, Nokia

We look forward to discussing the ongoing activities of the TETRACOM project with them!



As example of the traffic generated by the TETRACOM website, Figure 2 shows the number of users that visited the website in July 2014.



Figure 2 Number of users in July 2015 (Newsletter was sent out on the 10th).

TETRACOM on Facebook

A TETRACOM account on Facebook was created in October 2013. We have noticed however that only young people are usually active on Facebook (PhD students) and that most of them only use Facebook for private/personal use. Most people do not link their Facebook page to their professional occupancies and it is therefore difficult to generate a lot of traffic on the TETRACOM Facebook page.

Link to the TETRACOM Facebook page:

<https://www.facebook.com/pages/Tetracom/211804222327602?ref=stream>

TETRACOM on Twitter

A TETRACOM account on Twitter was created in October 2013.



tetracom

TETRACOM

@TetracomProject

The mission of the TETRACOM Coordination Action is to boost European academia-to-industry technology transfer (TT) in all domains of Computing Systems.

tetracom.eu

3 Photos and videos



TWEETS 36 FOLLOWING 38 FOLLOWERS 19

Tweets Tweets & replies Photos & videos

TETRACOM retweeted

HIPEAC @hipeac - Jan 20

TETRACOM TTP Poster Session today at @TetracomProject #hipeac2015



View more photos and videos

TETRACOM retweeted

SparsityTechnologies @SparsityTech - Jan 20

Sparsity CEO @larri64 at @hipeac Conference in Amsterdam, presenting tech transfer project thanks to @TetracomProject



View more photos and videos

23 messages have been sent out since 1 May 2014:

- #HIPEAC 10th anniversary-Block review Barcelona #AdvancedComputing : Impact workshop.@DigitalAgendaEU #innovation



- Worldcafe Impact workshop: Metrics 4 impact, business models 4 [#advancedcomputing](#) & advices for [@EU_Commission](#) [@hipecac](#)
- Great result for first call for TTP's: 31 proposals submitted from 13 EU countries, 904k€ funds requested supported by 1.1M€ matching funds!
- TETRACOM Steering Board Meeting this morning in Brussels! Info about the new call for TTP's will be announced soon!



- Industrial advisory board helps Tetracom to determine the right impact metrics for its technology transfer projects.



- dama.upc.edu and [@SparsityTech](#) join efforts to productise community search [#graphdatabase](#) thanks to [@TetracomProject](#) [@FP7_Projects](#)

- RT @larri64: <http://goo.gl/OgHhv7> and @SparsityTech join efforts to productise community search #graphdatabase thanks to @TetracomProject
- 2nd call for Technology Transfer Projects (TTP's) opens on 15/11/2014 2014. Submit your TTP Proposals before 31/12 on <http://www.tetracom.eu>
- 2nd call for TTPs opens on 15/11/2014 for a total budget of 300.000€. Submit your TTP Proposals before 31/12/2014 on <http://es.iet.unipi.it/tetracom/content/index.php/call-for-projects>!
- Visit the TETRACOM TTP poster session on 20/01/2015 @ RAI Amsterdam (co-located with #HiPEAC2015) & get to know the first active TTPs!
- Next TETRACOM Workshop On Transfer to Industry and Start-ups (TISU) on 20/01 co-located with #HiPEAC2015 @ Amsterdam
<http://es.iet.unipi.it/tetracom/content/index.php/news/8/62/Third-Workshop-on-Transfer-to-Industry-and-Start-Ups-TISU>
- Great TTP example : Ghent University & Samsung Research UK collaborating on the Diablo link-time rewriting framework <http://diablo.elis.ugent.be>
- Share your experience @ the 3rd Workshop On Transfer to Industry & Start-ups (co-located with #HiPEAC2015), contact k.l.m.bertels@tudelft.nl
- New blog post: Scalable #Community Detection on the #Cloud. SCD made product thanks to @TetracomProject | <http://ow.ly/DJY0p> | #SCDC
- Looking at ways to exploit results like we do at @aspirefp7? Have a look at the @TetracomProject workshop: TETRACOM's 2nd Call for academia-industry Technology Transfer Projects (TTPs) is now open! Submit until 31/12/2014 on <http://es.iet.unipi.it/tetracom/content/index.php/call->
- TETRACOM's 2nd Call for academia-industry Technology Transfer Projects (TTPs) is now open! Submit until 31/12/2014 on <http://es.iet.unipi.it/tetracom/content/index.php/call-for-projects>
- @TetracomProject gives partial #funding for Academia-Industry #tech transfer projects in #Computing Systems! <http://ow.ly/FkXNE> #H2020
- Have an idea for #tech transfer to industry in #Computing Systems? Check @TetracomProject call, ddl 31 Dec <http://ow.ly/FkYj1> #H2020
- #BestOfTheYear - During 2014 Sparsity has started a @TetracomProject Tech Transfer Project and joined the @hipeac - <http://ow.ly/GwTqJ>
- Silexica - multicore meets simplicity, founded by HiPEAC member, wins prestigious award WECONOMY2014! More info on <https://www.youtube.com/watch?v=N6oPujulR1k> More about our @TetracomProject Technology Transfer Project: <http://ow.ly/HCuUB> | Scalable #Community Detection on the Cloud | @hipeac
- Sparsity CEO @larri64 at @hipeac Conference in Amsterdam, presenting tech transfer project thanks to @TetracomProject

- TETRACOM TTP Poster Session today at [@TetracomProject](#) [#hipeac2015](#)

In total, the messages that TETRACOM sent out to its followers were retweeted 46 times and were favorited 17 times.

TETRACOM press release

No new press releases were sent out since 1 May 2014

TETRACOM covered in the press

No new press releases were sent out since 1 May 2014

Task 2.5: TETRACOM main workshop

Lead partner UGENT

On top of the semi-annual TT workshops a single, public large-scale workshop will be organized as a full-day event during the project. It will feature keynotes and discussion of general project results, as well as highlights from selected individual TTPs. While by default a main workshop could also be placed at end of the project, it is foreseen to actually schedule it as an intermediate event in month 24. The advantage is that (1) workshop results can still influence the remainder of the project and (2) the HiPEAC3 network would still be operational and could provide infrastructure and synergies. Instead of a formal end-of-project meeting event, TETRACOM will deliver a new public White Paper (deliverable D1.5).

So far, no binding decisions have been taken w.r.t. to this workshop. The foreseen date is Sep 23, 2015 during the HiPEAC fall Computing Systems Week.