



D6.2 Dissemination & Collaboration Strategy Document Version 1.0

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Change Log

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v1.0	Initial Draft released to the European Commission (based on internal v0.6)

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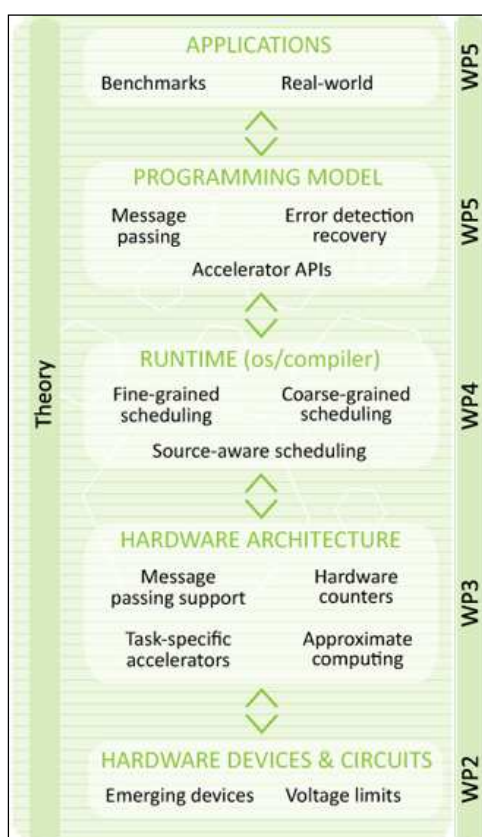
1 Introduction and executive summary

The purpose of the D6.1 Dissemination Strategy Document is to clearly define the dissemination objectives for the entire duration of the ParaDIME Project as well as to determine the channels and activities required to achieve these objectives.

This document identifies the key decision makers from industry as well as from academic institutions who will benefit most from the dissemination of the ParaDIME Project. It defines the appropriate communication channels by describing all dissemination materials as well as determining the level of web presence for the project. The document also details the targeted events, including conferences for scientific presentations as well as suggests potential collaborations with other ICT Projects and with the FET community. Finally, it provides a set of target metrics for the project by which dissemination success may be measured on an annual basis and over the course of the project.

This document does not include a detailed plan for transfer of the technology as this will be laid out in the D6.6 Final Plan for the Use and Dissemination of the Foreground. It rather focuses on the planning for the dissemination of the project results to industry and academic leaders in the area of programming models, parallel programming and low level device implementation. The periodic dissemination results and subsequent measurement of these results against the target metrics will be presented annually in the Dissemination and Use Reports (D6.3, D6.4, D6.5).

2 The ParaDIME Project at a glance



The ParaDIME Project, is about taking unconventional approaches to improve energy efficiency, but it is equally about cost savings resulting from this improved energy efficiency.

At the outset of the project, we define energy-efficient execution as a set of target energy savings as well as cost savings metrics by which the success of the project will be measured during the evaluation phase of the project. Throughout the project, we employ a series of methodologies at the device and circuit (WP2), architecture (WP3), runtime (WP4) and programming model (WP5) levels of the computing stack as a means of attaining these target metrics.

The final outcome of the project will be a complete computing stack that includes novel architecture components based on “beyond the state-of-the-art” technology and a programming environment and an execution framework for energy-efficient execution of concurrent applications. These applications will execute on

heterogeneous computing platforms from handheld devices to data centers.

3 Organization and Communication

The ParaDIME Project is organized into six Work Packages, one of which is specifically dedicated to “Dissemination and Exploitation” (Work Package 6). Partners BSC and AoTerra will drive the dissemination activities as they have been allocated 6 and 3 Person Months, respectively; the rest of the partners will also have a role in dissemination, but at a lower level of effort (up to 1 Person month each).

As the Leader of Work Package 6 (WP6), BSC will manage all dissemination-related activities including the creation of electronic and printed content as well as organizing events where appropriate.

In order to manage the day-to-day aspects of WP6, BSC will introduce a recurring agenda item into the monthly General Assembly teleconferences (as well as any Face-to-Face meetings) to discuss the implementation of as well as improvements to the Dissemination Strategy set forth in this document.

In general, the primary source of internal communication for the project will be email. For this reason, the BSC will establish a Distribution List that consists of a representative from each Project Partner for Dissemination purposes (in the case that the Core / Tech Distribution Lists are not sufficient for this purpose). This list will be used to ensure that all partners are kept informed regarding the dissemination process and the available dissemination opportunities.

4 General Objectives and Targets

4.1 Dissemination Objectives

The principal objectives for dissemination in the ParaDIME Project are:

- To influence the green computing industry, in particular: chip manufacturers, OS vendors, compiler developers and data center designers
- To disseminate the ParaDIME Project results to the major academic stakeholders in European scientific and research communities and motivate them in the further study of ParaDIME-like programming models and architecture
- To liaise with FET and other relevant initiatives worldwide to disseminate the application of ParaDIME results to the public at large

4.2 Target Groups

The target groups for dissemination of the ParaDIME Parallel Programming Model as potential users, external collaboration partners and vendors are:

4.2.1 TIER 1 Industry (the Standard Bearers)

The technical achievements from the ParaDIME Project are expected to improve energy efficiency for everything from mobile to data center (cloud) computing systems and consequently, decrease the associated operating costs. Thus, the primary target for the ParaDIME Parallel Programming Model is organizations that run and maintain large server farms or that host cloud computing services such as Google, Amazon and Nokia cloud services. As the energy bills of these organizations

significantly raise the operating costs, a reduction in the energy consumption would mean both lower operating costs and a reduced carbon footprint. That said, it is important to note that it is unlikely that these key industry target groups will pick up the ParaDIME programming model and associated computing stack as is. For this reason, Dissemination targeted at this group will be attempted through the demonstration of the technical achievements in an industry-focused event (ParaDIME Workshop) to be held in the final year of the project and which is discussed later in this document.

Specifically, the project hopes to provide evidence and possibly demonstrate that the strategies for the relocation of computing jobs to maximize utilization of less hardware and turn off the remaining underutilized resources reduces the energy consumption at the data center level. In addition, we plan to show how to include the type of energy in algorithms that schedule computation jobs across data centers. These finding may help companies owning data centers to both significantly reduce energy costs and use green energy as much as possible.

4.2.2 TIER 2 Industry (Broader Reach Industry)

In addition to the computing industry adopting the ParaDIME methodologies, a wide range of related industries may be interested in exploiting the results obtained in the ParaDIME Project. Such industries include, but are not limited to:

- Gaming
- Telecommunications infrastructure
- Satellite communication
- Solar, Wind and other Renewable Energy Technologies

Regarding the potential impact on the renewable energy sector and as mentioned in the previous section, we plan to conduct research on channelling computing resources to data centers so that they may use renewable energy sources when it is both profitable and feasible to do so.

4.2.3 Academic Community

A secondary target for disseminating the ParaDIME Project is the key academic institutions that will adopt the ParaDIME Parallel Programming Model for research purposes or build applications based on the platform.

The findings of the ParaDIME Project will be directly applicable to research in Low-power design and energy efficient processors but will also indirectly apply to other fields like material science, engineering, geophysics, image processing, high energy physics, bioinformatics, financial modeling and numerical analysis which use large-scale, high performance and high throughput computing.

5 Corporate Image

5.1 Corporate Style

The ParaDIME Project will build a strong corporate identity (image, brand and style) centered on green computing. The specific guidelines and templates will be in place by Project Month 6 ready for the first milestone of the project. The corporate style

will be adhered to by all Project Partners in all printed and electronic materials related to the ParaDIME Project.

5.2 Logo

A central element of the corporate style and branding of the ParaDIME Project and the ParaDIME Platform will be the project logo. The logo is available in color as well as black and white for the following formats: EPS, JPG and PNG from the public ParaDIME website: www.paradime-project.eu/press-center. This logo will be included on all materials related to the ParaDIME Project made available to the public as well as all materials presented to the European Commission.

5.3 Language

The language of the ParaDIME Project is English for all official communications. However, press material will be available in different language versions where possible. Each Project Partner will ensure that the Press Release (where possible and applicable) is translated into the local languages.

6 Dissemination Channels

In order to effectively reach the targets for dissemination and to maximize the visibility of the project, a broad spectrum of dissemination channels will be used. The Public Website will play a central role in the larger project Dissemination Plan. The website will be complemented by Press Releases and focused dissemination activities targeted to members of the Industrial Advisory Board (IAB). However, the most important channel for disseminating information will be through a carefully selected list of events and conferences that bring together the key industry players. This list has been created by soliciting input from all Project Partners.

6.1 Dissemination Contacts and Existing Channels

Each Project Partner will be responsible for identifying a pool of Dissemination Contacts associated with their respective institution to be used for spreading the results of the ParaDIME activities. Of special importance is dissemination to the members of the Industrial Advisory Board.

Moreover, the ParaDIME Project will employ the Project Partner's existing dissemination channels which include public websites and promotional materials. The Dissemination Team will ensure that each Project Partner has met the following minimum requirements which are reflected in the overall project dissemination metrics targets described later in this document:

- (Where possible) Include a link from the Project Partner Public Website to the ParaDIME Public Website by Project Month 6.
- Include at least one ParaDIME article in an organization-related publication (website, newsletter or other) over the course of the project.

6.2 Public Website

The ParaDIME Public Website, www.paradime-project.eu, will play the single most important role in disseminating project information and will be publicly available by project month 6 (Achieved: Launched on 1 December 2013, technically the end of

project month 2). The website target audience will include the general public, the European Commission as well as industry.

The main objective of the public website will be to provide general information about the project objectives, current activities, Project Partners and achievements of the ParaDIME Project. This information will include relevant news, press materials and publications (published results). Once results have been published, the public website will also serve as a primary point of reference for downloading publications and any other public deliverable from the project.

The website will be implemented using standard SEO Guidelines (Search Engine Optimization Guidelines) to ensure that it is correctly referenced and ranked by the major search engines.

The website will be updated constantly throughout the lifetime of the project, and a link will be included as a reference point in all printed materials (articles, press releases, flyers, presentations, etc.). The Dissemination Team will create and maintain the content of the website with the WP6 Leader as its editor-in-chief.

6.3 Press Releases

The objective of Press Releases will be to attract attention to major project developments and achievements. An initial Press Release will be “released” after the initial project planning in order to generate awareness about project in the general public. In the 3 years to follow, there will be at least one Press Release at the beginning and end of the project, respectively, which will focus on the completion of a major milestone rather than general project progress.

Press Releases will be formulated and released in a coordinated way by the WP6 Leader. Press Releases will be created in English; however, Partners will be encouraged to translate them into their native languages and disseminate them on their websites and local press contacts.

6.4 Flyer / Factsheet, Poster Template and Video

The Project Flyer / Factsheet will provide general information regarding the ParaDIME Project, its objectives and achievements. It will be designed for a standard European paper size (A4), so that interested Project Partners can easily download and print for their own dissemination purposes.

The project poster template (A0) will complement the project flyer from a technical perspective. It will be available for publicizing project results in peer-reviewed conference poster sessions.

In keeping up with the times, it is possible that the team will put together a short video describing the purpose and approach of the project for a lay audience that would be available from the project website. The creation of the video would depend on both the available funding for such activities in addition to the significance of the results obtained in the first two years of the project.

7 Events, Publications and Collaborations

7.1 Targeted Events

7.1.1 Peer-reviewed Scientific Conferences

Another important channel for disseminating information regarding the project progress is to attend and present at high-level peer-reviewed international conferences in the field of computer architecture, parallel programming, programming models, compilers and operating systems.

Presenting the ParaDIME concepts at such conferences, workshops or meetings will be among the most effective means of involving industry leaders in discussions about standardization.

All partners will play an important role in the dissemination of knowledge. The scientists of each site have published a large collection (several hundreds) of papers in the most prestigious conferences and journals of their research areas, and they have repeatedly served as members of Program Committees of the most prestigious conferences in their field. Thus, they will disseminate the results in high level peer reviewed conferences in the fields of circuits and devices, computer architecture, compilers, runtime systems and programming language design. In particular, high-visibility conferences with an acceptance rate of 20% or lower will be targeted whenever possible.

The list of targeted Academic / Industrial events includes, but is not limited to:

- DAC: Digital Automation Conference
- DATE: Design and Test in Europe Conference
- ASPLOS: ACM Architectural Support for Programming Languages and Operating Systems
- PPOPP: ACM Symposium on Principles and Practice of Parallel Programming
- HiPEAC: High Performance Embedded Architecture and Compiler Conference
- ISCA: IEEE/ACM International Symposium on Computer Architecture
- Micro: IEEE/ACM International Symposium on Microarchitecture
- PLDI: ACM Conf. on Programming Language Design and Implementation
- PACT: Parallel Architectures and Compilation Techniques
- OOPSLA: Object Oriented Programming, Systems, Languages and Applications
- PODC: ACM Symposium on Principles of Distributed Computing
- ECOOP: European Conference on Object-Oriented Programming
- IEDM: IEEE *International Electron Devices Meeting*
- ICCD: IEEE International Conference on Computer *Design*
- ISLPED: International Symposium on Low Power Electronics and Design
- ISQED: International Symposium on Quality Electronic Design
- Green Computing

7.1.2 Other Events – Dissemination toward Exploitation

We will also seek out other channels for more industry-focused dissemination. For example, IMEC has in its disposal channels as Europractice and MTC, which can be used as needed during the project in order to raise awareness of the project goals and results to the European electronics industry. At the same time, TUD works closely with TUDAG (see <http://www.tudag.de>) which is specialized in the dissemination and commercialization of technologies developed by TUD.

7.1.3 ParaDIME Workshop

A significant dissemination event (to mark the end of the project) will be the organization of a ParaDIME Workshop to disseminate the results to a wider community. The event will be open to participants from industry (with an eye towards inviting members of the Tier 1 and Tier 2 Industries) and academia, and will include talks and presentations from the ParaDIME Team as well as from invited speakers that have worked on related topics.

The actual date, location and format of the ParaDIME Workshop will be decided by the General Assembly before month 24.

7.2 Targeted Publications

7.2.1 Peer-reviewed Scientific Publications

The list of targeted Journals for publication includes:

- IEEE Transactions on Computers (TC)
- ACM Transactions on Architecture and Code Optimization (TACO)
- ACM Transactions on Programming Languages and Systems (TOPLAS)
- Transactions on HiPEAC
- SIAM Journal on Computing
- IEEE Transactions on VLSI
- ACM Transactions on Design Automation of Electronic Systems

7.3 Targeted Collaborations with FP7 Projects

Another source of dissemination will be the HiPEAC Network of Excellence in which several ParaDIME partners are involved. At HiPEAC events (Computing System Weeks, Summer School, conferences and workshops), we will present posters and give talks to disseminate the ongoing ParaDIME activities and achievements.

Moreover, the project will target at least one other strong collaboration with another FP7 FET Proactive Project, (Entra, Exa2green, Landauer, Phidias, Sensation, Tolop). Ideally, we will propose a joint workshop that focuses on synergies between the projects' technical developments from the second year of the project.

7.4 Contribution to Standards

Finally, based on the success of the ParaDIME methodologies employed, partners plan to disseminate to the appropriate programming model community (most likely, (Scala and Akka).

8 Target Metrics

The table below summarizes the target metrics for the project by which dissemination success may be measured on an annual basis as well as over the course of the project. These metrics were determined via discussions within the Consortium as well as a comparison with projects of similar size and scope. The periodic dissemination results and subsequent measurement of these results against the target metrics will be presented annually in the Dissemination and Use Reports (D6.3, D6.4, D6.5, D6.6).

DISSEMINATION METRICS - TARGET				
REF	TASK	DISSEMINATION TYPE	ANNUAL TARGET (TOTAL)	ADDITIONAL DETAILS
1	T6.4 Partner Dissem	Peer-reviewed Scientific Publications	6 (18)	Based on one publication per Partner per year (+1 additional for Coordinator), Includes Journal, Workshop and Conference Papers and Posters
2	T6.4 Partner Dissem	Industry-targeted Event Leadership (IAB Meeting) or Participation (Invited Talk, Poster or Booth)	1 (3)	Includes Industrial Advisory Board (IAB) Meetings
3	T6.4 Partner Dissem	Science / Academia-targeted Event Participation (Invited Talks, Poster or Booth – without proceedings)	2 (6)	NA
4	T6.6 FET Collab	Project-focused Workshops	2	Over duration of project, in conjunction with other FET Projects
5	T6.6 FET Collab	Project Collaborations	2	Over duration of project
6	T6.2 Press	Non-scientific Publications (dissemination of project, project progress, etc.)	2 (6)	Based on one article per Partner (+1) in Partner-related, EC or other dissemination publication over course of project
7	T6.2 Press	Project Press Releases	2	Over duration of project, based on one PR after project start and one PR near project completion
8	T6.2 Press	Press-related News International Impacts	6	Over duration of project.
9	T6.3 Web	Blog Entries	12 (36)	Based on one entry per month
10	T6.3 Web	Web Page Views	10,000	Over duration of project