

Funding Scheme: THEME [ICT-2007.8.0] [FET Open]

## Paving the Way for Future Emerging DNA-based Technologies: Computer-Aided Design and Manufacturing of DNA libraries

Grant Agreement number: **265505**

Project acronym: **CADMAD**

Deliverable number: **D6.7**

### Plan for using and dissemination the know-how

Contractual Date <sup>1</sup> of Delivery to the CEC: <b>M12</b>
Actual Date of Delivery to the CEC: <b>M13</b>
Author(s) <sup>2</sup> : <b>OSM</b>
Participant(s) <sup>3</sup> : <b>WEIZMANN</b>
Work Package: <b>WP6</b>
Security <sup>4</sup> : <b>Pub</b>
Nature <sup>5</sup> : <b>R</b>
Version <sup>6</sup> : <b>1.0</b>
Total number of pages: 5

#### Abstract

This Plan for Using and Disseminating the Know-How describes all project dissemination activities, sharing the accumulated knowledge between the partners, the scientific community and the public in large.

<sup>1</sup> As specified in Annex I

<sup>2</sup> i.e. name of the person(s) responsible for the preparation of the document

<sup>3</sup> Short name of partner(s) responsible for the deliverable

<sup>4</sup> The Technical Annex of the project provides a list of deliverables to be submitted, with the following classification level:

**Pub** - Public document; No restrictions on access; may be given freely to any interested party or published openly on the web, provided the author and source are mentioned and the content is not altered.

**Rest** - Restricted circulation list (including Commission Project Officer). This circulation list will be designated in agreement with the source project. May not be given to persons or bodies not listed.

**Int** - Internal circulation within project (and Commission Project Officer). The deliverable cannot be disclosed to any third party outside the project.

<sup>5</sup> **R (Report)**: the deliverables consists in a document reporting the results of interest.

**P (Prototype)**: the deliverable is actually consisting in a physical prototype, whose location and functionalities are described in the submitted document (however, the actual deliverable must be available for inspection and/or audit in the indicated place)

**D (Demonstrator)**: the deliverable is a software program, a device or a physical set-up aimed to demonstrate a concept and described in the submitted document (however, the actual deliverable must be available for inspection and/or audit in the indicated place)

**O (Other)**: the deliverable described in the submitted document can not be classified as one of the above (e.g. specification, tools, tests, etc.)

<sup>6</sup> Two digits separated by a dot:

The first digit is 0 for draft, 1 for project approved document, 2 or more for further revisions (e.g. in case of non acceptance by the Commission) requiring explicit approval by the project itself;

The second digit is a number indicating minor changes to the document not requiring an explicit approval by the project.

## Objectives

- Raising public awareness of CADMAD among key user groups, scientific community and general public
- To promote sharing of knowledge inside the Consortium
- To strengthen networking relationships between academic partners and relevant industry
- To contribute to generation of a positive image for industrial research – by promotion and dissemination of results
- Promote women in science and technology
- Dissemination of the project results

## The plan is based on WP6 within Annex I

### Dissemination Activities (All)

The dissemination activity will be the following:

- Publications in popular newspapers and journals
- Scientific publications:

Partners under the CADMAD umbrella are committed to disseminate *the project and its results* locally to companies and academics of interest. Throughout the duration of the project, research publications will be strongly encouraged, particularly in high-impact international journals and conferences. All partners will be expected to contribute to these publications and collaborative papers between partners will be further endorsed.

- IEEE Transactions on NanoBioSciences; Bioinformatics; The Journal of Biological Chemistry; Biotechnology and Bioengineering; Nature Biotechnology; Nature Methods; Nature Molecular Systems Biology; Molecular Systems Biology; Systems and Synthetic Biology; Environmental Microbiology; Nucleic Acids Research,
- Biotechnology and Bioengineering Publication of the results in the various European Commission web sites, especially CORDIS PROJECTS and CORDIS RESULTS

- Posting the partial research results on the web sites of each participant.
- International Scientific Conferences:

The results of the project will be presented in a number of scientific meetings organized by various scientific societies and will be available for discussions with subsequent inputs from other research groups. Some of the conferences are:

- ICT 2012 - International Conference on Information and Communication Technologies
- Bio-It World Conference & Expo
- Annual International Conference on Information Technology Convergence and Services
- Annual International Conference on Information Technology Convergence and Services
- European Conference on Synthetic Biology, Intelligent Systems in Molecular Biology, RECOMB, FNANO,
- Annual Meeting of the International Society of Stem Cell Research
- Bi-Annual International Meeting Stem Cells and Tissue Regeneration in Dresden

In each scientific paper and conference presentation the following statement will be added:

*“The project CADMAD acknowledges the financial support of the Future and Emerging Technologies (FET) programme within the Seventh Framework Programme for Research of the European Commission, under FET-Open grant number: 123456”.*

- Publication of the results in the various EC web sites, especially CORDIS PROJECTS and CORDIS RESULTS.
- Each partner will organize at least one informal seminar or workshop for non-specialists.
- Workshops

Three workshops will be presented during the annual consortium meetings, and it is anticipated that students will visit other consortium partners to exchange project know-how and technologies

In addition, CADMAD will organize at least two **seminars with relevant EC funded projects** (e.g. BACTOCOM – FP7) in order to exchange opinions and correlate work and results as much as possible. see Deliverables D6.2 – D6.4.

- **Website: (WEIZMANN):**

An interactive web site for the CADMAD project was already created for both the general public and the consortium members.

The portal acts as a project management tool, which will keep all members up-to-date on the deliverables and milestones.

- **Contribution to portfolio and concertation activities at FET-Open level (WEIZMANN)**

In order to support scientific cooperation at the FET-Open level and broad public awareness of project achievements, consortium members will ensure within the areas of interest of the project:

Project results shall be published throughout the duration of the project in widely accessible science and technology journals, as well as through conferences and through other channels, including the Web, reaching audiences beyond the academic community.

Beneficiaries shall deposit an electronic copy of the published version or the final manuscript accepted for publication of a scientific publication relating to foreground published before or after the final report in an institutional or subject-based repository at the moment of publication.

Beneficiaries are required to make their best efforts to ensure that this electronic copy becomes freely and electronically available to anyone through this repository:

immediately if the scientific publication is published “open access”, i.e. if an electronic version is also available free of charge via the publisher, or within 6 months of publication.

Periodic press releases will be issued, and other means of disseminating project progress to a wider audience e.g. via video.

Participation in FET-organised events, for example conferences, dedicated workshops & working groups, consultation meetings, summer schools, online fora, etc.

International Co-operation - contribution to relevant national and international activities (ex. Joint workshops, calls, etc... for example with NSF...).

### **Exploitation strategy (WEIZMANN)**

Intellectual Property Rights (IPR): Partners will define IP within the project by following up and analysing main breakthrough in parallel with evaluation of existing patents in relevant research fields.

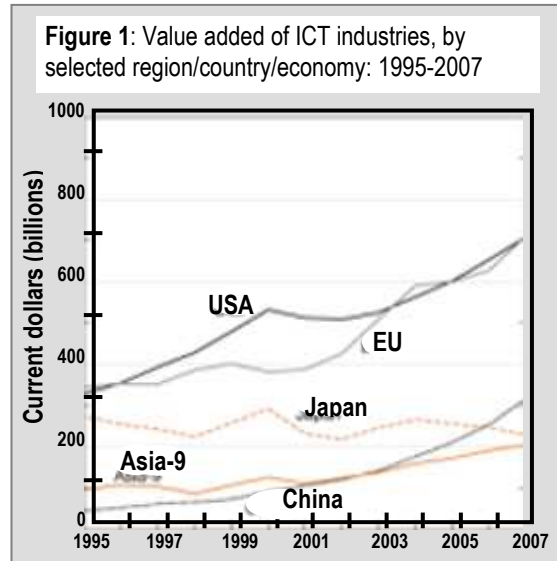
The following steps will be initiated:

- Update of literature and relevant patents to be performed by each partner involved in main research topics.
- Documentation update via the internal web platform
- Result identified as mature for protection or promotion will be discussed by the project Executive Committee and decision will be taken on protection steps.
- The Consortium Agreement will largely develop the IPR issues including updated Annexes of background and foreground of each partner

## Exploitation activities:

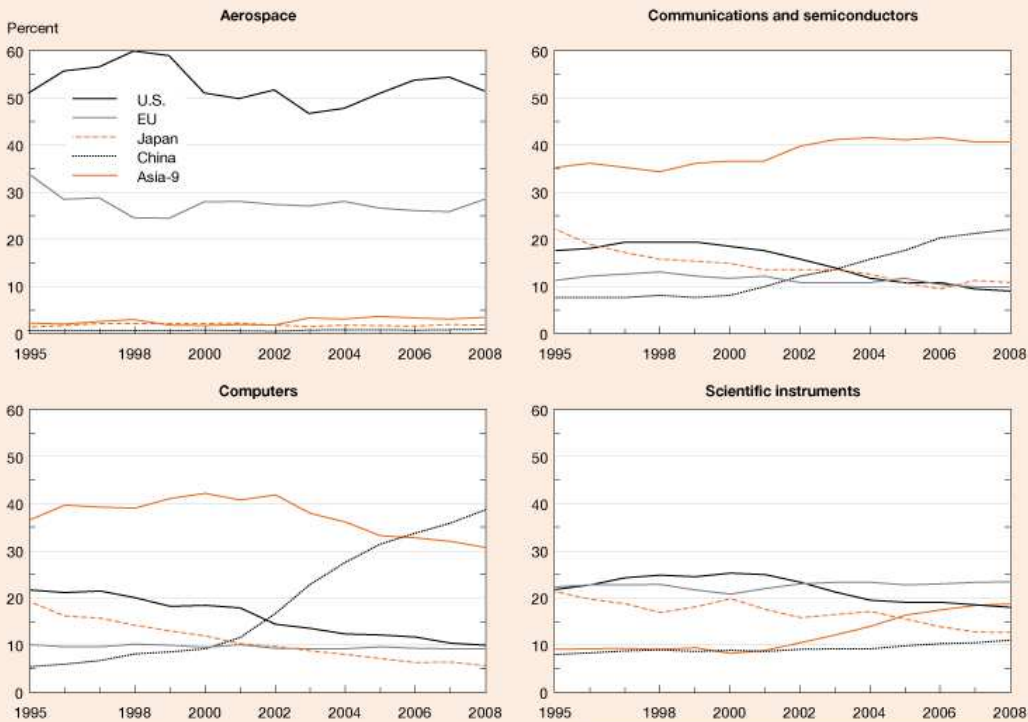
**General overview: ICT is one of the areas underpinning Europe's economic performance and is pivotal to its economic growth.** In 2007 the USA and EU tied as the largest ICT producers (about \$700 billion), followed by second-ranked China (\$315 billion). Japan and the Asia-9 converged in a range of approximately \$205–\$230 billion, while the USA and EU shares fluctuated over the decade (figure 1.)<sup>7</sup> In order to maintain Europe's leadership in key ICT and High-tech areas its research and innovation has to be strongly supported.

Thus, CADMAD academic partners intend to capitalize knowhow via patents and when possible license the developed know-how. The research institutes and groups involved in this project employ well acquainted and capable personnel who master the legal procedures for IPR management.



**Figure 2**

**Region/country/economy share of global exports of selected high-technology products: 1995–2008**



SOURCE: IHS Global Insight, World Trade Service database, special tabulations (2009).

The expected exploitable foreseen knowledge and its use are listed in the table below:

<sup>7</sup> <http://www.nsf.gov/statistics/nsb1003/>

#	Exploitable Knowledge (EK) (description)	Sector(s) of application	Main Partners involved
EK-1	High level robot programming language	Liquid handling robots and application building	ETHZ, UEVE, UH
EK-2	DNAPl: Textual language and graphical user interface for specifying DNA processing tasks	DNA processing commercial services. Could be used by companies such as Geneart to specify de novo synthesis DNA libraries	UNOTT
EK-3	DNA processing platform	DNA processing commercial services. Companies could use this platform to process DNA and provide research services to biological labs.	WEIZMANN, UNOTT
EK-4	Microfluidic platform for DNA processing	DNA processing commercial services. Moving the processing of DNA to microfluidic should drastically lower the cost to DNA processing and would be useful to any DNA processing company	RUB, UEVE

Exploitation by the R&D centers/academic partners: Partners that will produce scientific and technological results of commercial value will be involved in their exploitation both directly and indirectly. The direct output of this project

- (a) Will be protected by patents and by granting licenses to the relevant industries for its exploitation,
- (b) Will be realized by increasing their leadership in their respective areas of research on a global scale.