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# ASGARD

## Advanced Fuels for Gen IV Reactors: Reprocessing and Dissolution


Contract Number: 295825

### DELIVERABLE D 1.3.2 COMMUNICATION ACTION PLAN – UPDATE 2013

#### EVALION

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Dissemination level			
PU	Public	<b>X</b>	
RE	Restricted for specific group		
CO	Confidential (only for ASGARD partners)		

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1.1	06/06/2012	P. Koran	Final version,
1.2	28/03/2013	P. Koran, Retegan, Stilijanova, Tinsley	2013 Annual update
1.3	04/04/2013	P. Koran	ICHTJ and IRS publications and conferences added

## Relevant domain(s) and workpackage(s)

Tick **ALL** ☐ or select in the following table:

DM	WP
DM 1 <input checked="" type="checkbox"/>	WP 1.1 <input type="checkbox"/> WP 1.2 <input type="checkbox"/> WP 1.3 <input checked="" type="checkbox"/>
DM 2 <input type="checkbox"/>	WP 2.1 <input type="checkbox"/> WP 2.2 <input type="checkbox"/> WP 2.3 <input type="checkbox"/>
DM 3 <input type="checkbox"/>	WP 3.1 <input type="checkbox"/> WP 3.2 <input type="checkbox"/> WP 3.3 <input type="checkbox"/>
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# CONTENT

EXECUTIVE SUMMARY.....	5
1 INTRODUCTION .....	6
2 OBJECTIVES, TASKS AND EXPECTED RESULTS .....	7
2.1. OBJECTIVES.....	7
2.2 WP ACTIVITIES.....	7
2.3 Expected Results – Project WP3.1. Deliverables .....	9
3 TARGET GROUPS / END USERS .....	10
3.1. End user database .....	11
4 COOPERATION WITH OTHER PROJECTS, NETWORKING .....	12
4.1 Method of cooperation.....	13
5 DISSEMINATION CHANNELS .....	14
5.1 Existing local channels.....	14
5.2 ASGARD Website.....	15
5.3 Dissemination materials .....	16
5.4 Media channels .....	16
5.5 Events.....	16
5.5.1 Dissemination actions and publications so far (March 2013): .....	17
5.5.2 Events to be organized by the project.....	20
5.5.3 Schedule of ASGARD events.....	21
5.5.4 Conferences in 2013 .....	24
6 ARCHIVING DISSEMINATION MATERIAL.....	26
6.1 Archiving strategy .....	26
6.2 Archiving tools .....	26
6.3 Materials to archive .....	26
7 VISUAL IDENTITY OF ASGARD.....	28
7.1. Project Website: .....	28
7.2 Logo.....	28
7.3 Poster.....	29
7.4 Leaflet.....	29
7.5 Standard PPT template.....	30
8 PUBLICITY OBLIGATIONS .....	32
9 CONCLUSIONS.....	33

# EXECUTIVE SUMMARY

The Communication Action Plan represents a more detailed description of activities and tasks briefly described in the DoW in frame of **WP1.3 – Dissemination, exploitation and networking**. This document identifies and organizes the activities to be performed and dissemination channels to be used in order to promote ASGARD project aims and targets, and to disseminate the project outcomes worldwide. The Communication Plan introduces strategy for identification of the target groups and key stakeholders of the project, definition of the communication channels, description of the dissemination materials to be developed and details of the targeted events and conferences of the project. The visual identification lists all graphical elements of the project, such as the project logo and other tools to be used within the project promotion.

The Communication Action Plan is to be considered a “living” document – it will be regularly updated according to project progress and actual needs and opportunities to make the project more visible.

# 1 INTRODUCTION

The aim of the dissemination work package (WP1.3 Dissemination, exploitation and networking) is to disseminate ASGARD's goals, progress and results to interested and potentially interested parties at national and international levels. This work package will enable presentation of the project outcomes for further exploitation and examine their possible applications. It will also create links with other European or international projects in order to assure cross-fertilization within the research community.

Work package 1.3 covers the full duration of the project; four partners are directly involved in the organization and realization of various types of promotional activities while the others will support them and contribute to dissemination of project objectives and results mainly through their participation on various scientific events and networking.

The below table shows the allocation of PMs by Beneficiary:

Partner	PMs	Role in WP1.3
CHALMERS	3	Representation of the consortium,
NNL	6,3	WP leader, overall planning and coordination of the project promotion, identification of target groups' representatives, End-user database
CTU	2	Networking
EVALION	2	Administrating webpage, elaboration of dissemination materials, support in IPR issues, updating Communication Plan

## 2 OBJECTIVES, TASKS AND EXPECTED RESULTS

### 2.1. OBJECTIVES

The main objective of WP1.3 is to guarantee dissemination of knowledge achieved by the project and its results into the defined target groups, represented mainly by the nuclear community. Reaching this objective requires identification, approaching and management of key target groups represented mainly by nuclear industries, key research organizations and the nuclear technical community as a whole. Dissemination of the project results also includes production and publishing of promotional materials for different target groups. Networking with related projects, initiatives and platforms will be given special attention in order to maximize the impact of the project and to utilize potential synergies.

### 2.2 WP ACTIVITIES

The work to be carried out within WP1.3 has been divided into 4 tasks covering all areas related to project dissemination, exploitation of results and networking. Their definitions are summarized below.

#### **Task 1.3.1: End users management (partners: NNL, CHALMERS, EVALION)**

Main target institutions will be identified in the beginning of the project. **End Users Database (D1.3.1) will be established by NNL and managed** throughout the project. ASGARD will use the stakeholder database to monitor the level of engagement with target groups and record feedback. **The database will be available to project partners in the restricted area of ASGARD website.** NNL will be responsible for the task. EVALION will keep the End Users Database updated throughout the project duration and assure distribution of project results to interested parties.

Duration: M3-M48

#### **Task 1.3.2: Dissemination and external communication (partners: NNL, EVALION)**

A number of ways can be used to achieve good communication, such as: information on project webpage and other reachable webpages and portals, brochures and leaflets, press releases, TV and radio broadcasting, scientific papers, presentations, posters, personal communication, educational materials resulting from other WPs, project logo and ASGARD corporate identity.

The target groups will be continuously informed about the project, with key events opened up to invited speakers and attendees. Publication of the results from ASGARD will be encouraged from all participants and a number of papers will be produced. Annually revised Communication Action Plan (D1.3.2) will be used as basis for optimized and efficiently managed communication of the project. Annual Public Reports (D1.3.3) and (final) Executive Summary Reports delivered by DM2-DM4 will be used for communication purposes addressing broad public audience.

All partners will be involved in this task, with NNL taking the lead and EVALION supporting for creation of dissemination materials and administering the webpage.

Duration: M1-M48

### **Task 1.3.3 Networking (NNL, CHALMERS, CTU)**

This task will provide connections with other European networks and organizations (SNE-TP, ENEN, TSO, etc.) and relevant EU projects. The networking, especially with ENEN representatives will be ensured by already well established relations between ASGARD partners and ENEN. Additionally, strong links will be promoted from the very beginning with the present FP7 ACSEPT project. The networking will provide information exchange and timely feed-back on the impact of ASGARD results. Two International Workshops will be organized during the project, the first one two years into the project and the second one at the end of the project. Also presentations will be delivered or small workshops/sessions held at bigger international events and conferences in nuclear or energy field (such as e.g. FISA, GLOBAL, European Nuclear Conference, etc.).

Networking will be coordinated by NNL, CHALMERS and CTU. All partners are expected to contribute in this Task.

Duration: M1-M48

### **Task 1.3.4 Exploitation and Intellectual Property Management (CHALMERS, EVALION)**

An Exploitation Plan will be produced describing the key opportunities for implementation of the project outputs, within the EU and what the requirements will be to development any technology to the point of application. The plan will be based on around a Technology Roadmap format for each of the exploitation paths. Intellectual Property Management Strategy will be produced as a part of the Exploitation Plan. It will detail how each of the programme participants and partnering organizations will be able to extract value out of any IP generated in the project. CHALMERS will compile the final deliverable - D1.3.6. The Exploitation Plan based on all partners' inputs and requirements. EVALION will support CHALMERS in the area of IPR.

Duration: M13-M48



## 2.3 EXPECTED RESULTS – PROJECT WP3.1. DELIVERABLES

D1.3.1 Project Presentation (M3); responsible partner: CHALMERS

D1.3.2 Communication Action Plan (M6, M14, M26, M38), responsible partner: EVALION

D1.3.3 End Users Database (M9); responsible partner: NNL

D1.3.4 Annual Public Report (M16, M28, M40); responsible partner: EVALION/CHALMERS

D1.3.5 First International Workshop (M24); responsible partner: CTU

D1.3.6 Second International Workshop (M48); responsible partner: NNL

D1.3.7 Exploitation Plan including Technology Roadmap and IPR strategy (M48); responsible partner: CHALMERS

### 3 TARGET GROUPS / END USERS

Target group (or stakeholder) can be defined as any group or individual who can be affected by the project results and objectives or who can affect them. The project will aim at four levels of dissemination: awareness, understanding, action and participation. **Awareness** will mainly involve delivering the main message of the project in relation to its aim and objectives, while **Understanding** will require providing more detailed information on the project purposes, methods and deliverables. **Action** means that the project products will be delivered to the target group for further use. **Participation** means that some members of the target group will be directly involved in some of the project activities. Dissemination of information is also necessary towards stakeholders who will offer any kind of support within the project duration. The target groups and levels of promotion activities towards them have been identified and are presented in the table below.

Target Group	Awareness	Understanding	Action	Participation
Nuclear industries (involved in IUG, others)	X	X	X	X
Research organizations (SAC and others)	X	X	X	X
University teachers and students (Summer schools, courses, papers)	X	X		X
General Public (Webpage, promotion)	X			
EU legislative and research bodies (EU promotion and networking)	X	X		
Relevant projects (networking)	X	X	X	X
Other related industry (promotion, webpage)	X			
Media (interviews, press releases)	X			

### 3.1. END USER DATABASE

The end user database has a relatively simple form of Excel table (delivered by NNL). The typical member of the database will be a company or institution but individuals can be included as well in reasonable cases. Each member of the database will be identified by official name, the contact person and e-mail (obligatory). Other means of contact can be added if necessary. Each organization will typically be represented by 1 person, but in some cases more people representing 1 institution can be included. The database will be used for distribution of the information about project progress and its results.

Contact will be made with CINCH project, where a very good start of similar database has been established including for example universities teaching nuclear chemistry and European facilities in nuclear field.

The database has been established and is stored on PingPong in “DM1/WP1.3/End Users Database” folder. It will be populated by consortium members. The table will be administered by AMO (new entries will be sent to the AMO for update).

## 4 COOPERATION WITH OTHER PROJECTS, NETWORKING

To achieve the highest potential impact and discover multilateral synergies, ASGARD has been cooperating with other initiatives on national, European and international scale. Some of the initiatives identified are the following:

- FAIRFUELS – Fabrication, Irradiation and Reprocessing of Fuels and Targets for Transmutation – FAIRFUELS is looking to develop, fabricate and test innovative nuclear fuels containing Minor Actinides ([www.fp7-fairfuels.eu](http://www.fp7-fairfuels.eu)). Joint Winterschool with FAIRFUELS was organized in January 2013.
- ACSEPT – Actinide Recycling by Separation and Transmutation – The ACSEPT project objective is to develop chemical separation processes compatible with fuel fabrication techniques ([www.acsept.org](http://www.acsept.org)). Finished in 2012.
- ACTINET – Integrated Infrastructure Initiative for Actinide Science – The objective of this project is to reinforce the networking of existing European infrastructures in actinide sciences, and to facilitate their efficient use by the European scientific community ([www.actinet-i3.eu](http://www.actinet-i3.eu)). Finished in 2012.
- CINCH – Cooperation in Education in Nuclear Chemistry is focused on cooperation in education of the nuclear chemistry in EU in cooperation with Russia ([www.cinch-project.eu](http://www.cinch-project.eu)). Joint Winterschool organized in January 2013, the project is now finished.
- SNETP – Sustainable Nuclear Energy – Technological Platform – promotes research, development and demonstration of the nuclear fission technologies ([www.snetp.eu](http://www.snetp.eu)).
- Euratom – The European Atomic Energy Community - helps to pool knowledge, infrastructure, and funding of nuclear energy. It ensures the security of atomic energy supply within the framework of a centralized monitoring system ([www.ec.europa.eu](http://www.ec.europa.eu)).
- SACSESS - Safety of ACTinide Separation processes. FP7 EURATOM SACSESS project will provide a structured framework to enhance the fuel cycle safety associated to P&T. In addition, safety studies will be performed for each selected process to identify weak points to be studied further. These data will be integrated to optimise flowsheets and process operation conditions. Follow-up of ACSEPT project.
- TALISMAN - Transnational Access to Large Infrastructure for a Safe Management of ActiNide. FP7 EURATOM project will foster the networking between existing

European infrastructures in actinide sciences open them widely to any European scientists by offering and supporting transnational access to unique facilities. To meet its objectives, TALISMAN will animate and organize a network of actinide facilities across the EU that will increase our knowledge for a safer management of actinides fostering training and education. Follow-up of ACTINET.

- CINCH-II – in negotiation, to be completed after the project start. Follow-up of CINCH project.

#### 4.1 METHOD OF COOPERATION

Some of the ASGARD partners are also involved in the ACSEPT, CINCH, SACSESS, TALISMAN and FAIRFUELS projects. Thus the information flow between these projects and ASGARD is ensured. The other organizations involved in the mentioned projects will be informed about ASGARD via delivering of promotional materials, personal discussions and invitations to the events organized in frame of ASGARD project and vice versa.

Common meetings and courses will be negotiated where possible and appropriate. The first joined event of the ASGARD project was the first ASGARD summer school organized together with FAIRFUELS and CINCH in Netherlands in January 2013.

DM1 Leader (Teodora Retegan) is a member of the mirror group for "SET Plan Energy Education and Training Initiative" since March 2012.

In 2013, ASGARD will develop close collaboration with SACSESS project (launched in March 2013) and possibly with CINCH-II project (in negotiation). The collaboration will be aimed mainly at joint schools and seminars during winter 2013-2014.

Networking with the USA partners will be intensified. Established contacts are as follows:

- INL (Idaho National Laboratory) – Dr. Terry Todd
- Washington State University – Prof. Ken Nash
- University of California, Irvine – Prof. Mikael Nilsson
- University of California, Berkeley – Prof. Heino Nitsche

## 5 DISSEMINATION CHANNELS

In order to effectively reach the targets for dissemination and to maximize the visibility of the project, the partners will use a broad spectrum of dissemination channels. The project (public) website will play an important role in the project dissemination strategy. The website will be complemented by Press Releases, leaflets, posters, scientific articles as well as presentations at various events that bring together the key industry players. On the other hand, only publishable information can be used for wide promotion, which in case of ASGARD limits the number of relevant releases.

### 5.1 EXISTING LOCAL CHANNELS

Each ASGARD partner will use its existing dissemination channels. As minimum requirement each partner will:

- **Include a link from project partner website** to <http://www.asgardproject.eu> by Month 9.

Update: by March 2013, 4 partners' webpages contain information about the project. This number should be increased in 2013:

	info about asgard	link to ASGARD webpage
CHALMERS	YES	NO
JÜLICH	NO	NO
ICHTJ	YES	NO
NNL	NO	NO
PSI	NO	NO
NRG	NO	NO
KIT	NO	NO
CEA	NO	NO
CTU	NO	NO
KTH	NO	NO
EVALION	NO	YES
WESTINGHOUSE	NO	NO
INCDTIM	YES	NO
UNIVLEEDS	NO	NO
UMAN	NO	NO
UCAM	NO	NO

- **Assure the distribution of the project press releases and other promotional materials on the local/national level** through existing mailing lists, university online conferences etc.
- **Include at least one article in an organization-related publication** (website, newsletter or other) over the course of the project

## 5.2 ASGARD WEBSITE

CHALMERS and EVALION have been developing a website available at [www.asgardproject.eu](http://www.asgardproject.eu). Website statistics will follow the patterns of use, number of visitors, most accessed directories and top visited pages.

Sections and overall design of the website is described in D1.1.2 Quality Plan - Project Handbook. For dissemination and communication purposes, the following functions and pages within the website are mainly used:

- Calendar of ASGARD events at <http://asgardproject.eu/events>
- Short news at <http://asgardproject.eu/news>
- Contact Form at <http://asgardproject.eu/contact>.

As of March 2013, the ASGARD webpage statistics are as follows:



### 5.3 DISSEMINATION MATERIALS

Dissemination materials consist of:

- **Project of logo** and visual identity of the project elaborated by CHALMERS
- **ASGARD standard presentation** (PPT)
- **Project leaflet**
- Production of **posters** (one general poster was already elaborated by CHALMERS and EVALION with contribution of other partners; if needed, other posters may be created for special occasions)
- Production of **press releases** – at least **once a year**, usually based on annual public report (condensed version); NNL as the WP1.3 leader will be responsible for elaboration of the press release and coordination of its distribution

### 5.4 MEDIA CHANNELS

**Press campaign and publication of scientific articles and press releases** form an important part in the dissemination strategy. On-line and off-line magazines, scientific newspapers and blogs will be the main media channels. Mass media channels such as TV, radio will be targeted only in special occasions, probably in the final stage of the project. **Press releases and articles will be published at least once a year.**

### 5.5 EVENTS

One of the main dissemination channels to be used is participation on events and organising ASGARD project own workshops.



### 5.5.1 DISSEMINATION ACTIONS AND PUBLICATIONS SO FAR (MARCH 2013):

Partner(s)	Name of event or media	Date and location	Activity:	Type of audience
Chalmers	Interview in Bohsbladet	12. 01. 2012, Sweden	Gen. Proj. presentation	General Public
Chalmers	Press release	31. 01. 2012, Sweden	Gen. Proj. presentation	General Public
Chalmers	Article at klimatsmart.se	31. 01. 2012, Sweden	Gen. Proj. presentation	General Public
Chalmers	Interview-Swedish radio	8. 02. 2012, Sweden	Gen. Proj. presentation	General Public
Chalmers	Article in Todays Energy Solutions	8. 02. 2012, Sweden	Gen. Project presentation	General Public
Chalmers	Article in Ny Teknik	9. 02. 2012, Sweden	Gen. Project Presentation	General Public
Chalmers	Article in energyheter.se	9. 02. 2012, Sweden	Gen. Project Presentation	General Public
Chalmers	1 <sup>st</sup> Electra workshop	6.-7.03. 2012, Sweden	Concepts of Fuel production and recycling	Scientific Community
LEEDS	22 <sup>nd</sup> European Symposium on Computer Aided Process Engineering	17.-20.06. 2012, United Kingdom	The ASGARD poster presented at the event	Scientific Community
INCDTIM	The XXXII Romanian Chemistry Conference	3.-5. 10. 2012, Romania	Presentation	Scientific Community
INCDTIM	The 18 <sup>th</sup> National Conference with internat. participation – “Progress in Cryogenics and Isotope Separation”	October 2012, Romania	Presentation	Scientific Community
Chalmers	Chalmers internal news	17. 10. 2011	Gen. Project Presentation	General Public
Chalmers	Kemivarlden Biotech	27.10.2012	Article – gen.	General

			project presentation	Public
<b>NRG</b>	Nordic Nuclear Materials Forum for Gen IV Reactors	January 2012	General project presentation	NOMAGE4 project seminar participants
<b>Chalmers</b>	3 <sup>rd</sup> General Assembly of SNETP	Nov 29-30, 2012 Warsaw, Poland	Poster presentation	Open to public and external stakeholders
<b>Chalmers</b>	SNETP newsletter No.10	July 2012	Project profile	Scientific community
<b>KTH, Chalmers</b>	ATALANTE 2012 conference	September 2012, Montpellier, France	Presentation of work performed by KTH and Chalmers	Scientific community
<b>ICHTJ, JÜLICH</b>	ChemSession'12 – 9th Warsaw's Seminar of PhD students,	Warsaw, Poland, May 10th, 2012,	Poster: Synthesis of Kernels of Uranium Dioxide by Internal Geletion	Polish scientific community
<b>ICHTJ, JÜLICH,</b>	NuMat 2012: Nuclear Materials Conference	Osaka, October 22-25, 2012	Poster: Synthesis of Uranium Dioxide Microspheres doped by surrogates of MA by Complex Sol-Gel Process (CSGP)	Scientific community
<b>INCDTIM</b>	Central European Journal of Chemistry	10(6) 2012	Paper: "Catalytic reduction of sulfuric acid to sulfur dioxide", authors: Ancuța Balla, Cristina Marcu, Damian Axente, Gheorghe Borodi, Diana Lazăr	Scientific community

<b>INCDTIM</b>	The XXXIIth National Conference of Chemistry	Oct 3-5, 2012 Romania	“Determination of the activation energy for different catalysts in the sulfuric acid reduction to sulfur dioxide”, authors: Ancuța Balla, Damian Axente, Cristina Marcu	Scientific community
<b>INCDTIM</b>	The XVIIIth ICIT Conference, Progress in cryogenics and isotopes separation	Oct 25-26, 2012, Călimănești-Căciulata Romania	Paper: “Nitride Nuclear Fuels”, author D. Axente	Scientific community
<b>INCDTIM</b>	Central European Journal of Chemistry	Submitted for publication	“Determination of the Arrhenius parameters for different catalysts in the sulfuric acid reduction to sulfur dioxide”, authors: Ancuța Balla, Cristina Marcu, Damian Axente	Scientific community
<b>JÜLICH, CEA</b>	ATALANTE 2012 - Nuclear Chemistry for Sustainable Fuel Cycles	Sep 2-7, 2012 Montpellier	Oral presentation: The co-conversion of minor actinides in uranium based fuel by internal Gelation. Paper by S. Neumeier, H. Daniels, C. Schreinemachers, G. Modolo, D. Bosbach, G. Leturcq, S. Grandjean	Scientific community

<b>KIT-INE</b>	ATAS workshop 2012	November 5th – 7th 2012, Helmholtz-Zentrum Dresden Rossendorf, Germany	Poster presentation: M. Cheng, M. Steppert, C. Walther, "MonOm species distributions in acidic solution measured by Electrospray Ionization Mass-Spectrometry"	Scientific community
<b>UMAN</b>	Nuclear FiRST Doctoral Training Centre Winter School	January 8-10, 2013 Buxton, UK	poster presentation: "Molten salt reprocessing of carbide fuels"	Scientific community
<b>KIT-INE</b>	2013 Spring Meeting of the German Physical Society	March 18-22, 2013, Hannover, Germany	Oral presentation: "Mo_nO_m species distributions in acidic solution measured by Electrospray Ionization Mass-Spectrometry" by M.Cheng	Scientific community

### 5.5.2 EVENTS TO BE ORGANIZED BY THE PROJECT

Two international workshops with participation of representatives of selected target groups are planned to be organized in frame of ASGARD project. Their timing reflects the necessity of discussing the concrete project results, which will not be available during the initial period of the project. **The first international workshop was therefore scheduled for the second year 2 of the project and the second workshop should take place during the final year of the project duration.**

**Another two events are ASGARD Summer Schools.** The first was organized jointly with FAIRFUELS and CINCH in January 2013 in Petten (Netherlands).

See details at <http://asgardproject.eu/news/2013/02/20/winterschool-2013>

The second ASGARD Summer School is preliminary scheduled for the second half of the project.

### *5.5.3 SCHEDULE OF ASGARD EVENTS*

The events are planned in detail on 6 months basis. However, preliminary timing of project meetings, summer schools and courses are planned in advance at least 12 months. The following table, which is also available on internal project portal (Ping Pong), includes current (March 2013) status of the events' planning.

		Meetings	Venue	Organizer	Dates	Other events	Reports
2012	1	Kickoff Meeting, GB meeting, PCC meeting	Uddevalla	Chalmers	11.-13.1.		Project Presentation
	2						
	3						
	4						
	5						
	6	1 <sup>st</sup> Project Plenary and PCC Meeting	Jachymov	EVALION	11.-14.6.		1st PIR and DAR
	7						
	8						
	9		Montpellier		2-7.9.	Atalante 2012 – ASGARD session	
	10						
	11						
	12						2nd PIR and DAR
2013	13	2 <sup>nd</sup> Project Plenary and PCC Meeting, GB meeting	Petten	NRG, EVALION	28.1.-1.2.	1st ASGARD S.School, with FAIRFUELS and CINCH projects	
	14						
	15						
	16						Annual Public Report
	17						
	18	3 <sup>rd</sup> Plenary and PCC Meeting, SAC + IUG review	Warszawa, Poland	ICHTJ	10-14.6.	Internal ASGARD School, Warszawa	3rd PIR and DAR, 1st PR
	19	1 <sup>st</sup> EC REVIEW MEETING –	Brussels				
	20						
	21						
	22						
	23						
	24						
2014	25	4th Plenary and PCC Meeting, Interim SAC Meeting	Stockholm, Sweden	KTH			4th PIR and DAR
	26						
	27						

2015	28	3 <sup>rd</sup> EC Reporting Period					Annual Public Report
	29			Marianske lazne, CZ	CTU		1st Int. Workshop – NRC 2014 conference
	30		5th Plenary and PCC Meeting, 3rd GB Meeting	Dounreay UK	NNL		2nd ASGARD Summer School (?)
	31	3 <sup>rd</sup> EC Reporting Period	2nd EC REVIEW MEETING (?)	Brussels			To be confirmed
	32						
	33						
	34						
	35						
	36						
	37		6th Plenary and PCC Meeting	Cluj / Villigen			PSI or INCDTIM (?)
	38						
	39						
	40						
	41						Annual Public Report
	42		7 <sup>th</sup> Plenary and PCC Meeting, 4 <sup>th</sup> GB Meeting				7th PIR and DAR
	43						
	44						
	45						
	46						
	47						
	48		Final Plenary, PCC and GB Meeting, Final SAC Meeting				2nd Int. Workshop
	49		3rd EC REVIEW MEETING	Brussels			8th PIR, DAR, 3rd PR

### 5.5.4 CONFERENCES IN 2013

The following table includes events where ASGARD can be promoted in 2013.

EVENT	DATES				VENUE
Zirconium In The Nuclear Industry: 17th International Symposium	2013	Feb	3rd	7th	Taj Krishna Hotel, Hyderabad
Waste Management 2013	2013	Feb	24th	28th	Phoenix Convention Centre, Phoenix, Arizona, USA
International Conference on Nuclear Data for Science and Technology ND2013	2013	Mar	4th	8th	Sheraton New York Hotel & Towers, New York, NY, 10019 USA
MRS Spring Meeting and Exhibition	2013	Apr	1st	5th	San Francisco, USA
43emes Journees des Actinides (43th JdA) Conference	2013	Apr	6th	9th	Sestri Levante, Via Portobello 16039 Sestri Levante (GENOVA)
TAGSI /FESI SYMPOSIUM 2013	2013	Apr	9th	10th	Cambridge
4th Annual Decommissioning Conference	2013	Apr	15th	16th	Radisson Blu Edwardian Hotel, Manchester
6th All-Polish Conference on Radiochemistry and Nuclear Chemistry	2013	Apr	21st	24th	Kraków-Przegorzały, Poland
MENA Nuclear Energy Summit 2013	2013	Apr	22nd	24th	Park Rotana, Abu Dhabi
International Conference on Mathematics and Computational Methods Applied to Nuclear Science and Engineering (M&C 2013)	2013	May	6th	9th	Sun Valley Resort Hotel, Sun Valley, Idaho, USA
NEI : Used Fuel Management Conference	2013	May	7th	9th	St Petersburg, USA
ESARDA 35th Annual Meeting	2013	May	27th	30th	Congrescentrum Oud St-Jan, Brugges
E-MRS 2013 Spring Meeting	2013	May	27th	31st	Strasbourg
Scientific Basis of the Nuclear Fuel Cycle	2013	May	27th	31st	Congress Centre, Strasbourg
International Symposium of the Romanian Catalysis Society, Romcat 2013,	2013	May	29th	31st	INCDTIM, Cluj-Napoca, Romania
International Nuclear Physics Conference 2013 (INPC2013)	2013	Jun	2nd	7th	Florence, Italy
American Nuclear Society (ANS) Annual Meeting 2013	2013	Jun	16th	20th	Hyatt Regency Atlanta, GA, USA
Marketforce Nuclear Industry Forum	2013	Jun	17th	18th	Hallam Conference Centre, London



International European Nuclear Young Generation Forum (ENYGF)	2013	Jun	17th	20th	Stockholm, Sweden
11th International Conference on Materials Chemistry (MC11)	2013	Jul	8th	11th	University of Warwick, UK
UK Waste Management and Decommissioning 2013	2013	Jul	10th	11th	Rheged Centre - Penrith
INMM 54th Annual Meeting	2013	Jul	14th	18th	Palm Desert, California
Actinides 2013	2013	Jul	21st	26th	Karlsruhe
World Congress in Chemical Engineering	2013	Aug	18th	23rd	Coex, Seoul
SMiRT 22, Structural Mechanics in Reactor Technology	2013	Aug	18th	23rd	San Francisco
XVII International Sol-Gel Conference 2013	2013	Aug	25th	30th	Madrid, Spain
Thermodynamics 2013	2013	Sep	3rd	5th	University of Manchester United Kingdom
Migration 2013	2013	Sep	8th	13th	Brighton, UK
Hotlabs 2013	2013	Sep	9th	9th	Idaho
Topfuel 2013	2013	Sep	15th	19th	Charlotte, NC
Dalton Discussion 14 - Advancing the Chemistry of Actinides	2013	Sep	16th	18th	Edinburgh, UK
International Conference "Processes in Isotopes and Molecules, PIM 2013	2013	Sep	25th	27th	INCDTIM, Cluj-Napoca, Romania
Global 2013	2013	Sep	29th	3rd	500 South Main Street, Salt Lake City, UT 84101
Thorium Energy 2013 ThEC13	2013	Oct	28th	31st	CERN
The 19-th National Conference with international participation: "Progress in Cryogenics and Isotope Separation"	2013	Oct			INCDTIM, Cluj-Napoca, Romania
American Nuclear Society (ANS) Winter Meeting and Technology Expo	2013	Nov	10th	14th	Omni Shoreham Hotel, Washington DC, USA
Materials research Society (MRS) 2013	2013	Dec	1st	6th	Boston

## 6 ARCHIVING DISSEMINATION MATERIAL

ASGARD project partners aim to properly administer and preserve the dissemination material, activities planned and completed for internal purposes and for the European Commission.

### 6.1 ARCHIVING STRATEGY

ASGARD will use several tools for administration and archiving. The actual version of this plan will be available in the internal area of project website. Specific “folder” is dedicated to WP1.3. Partners have the possibility to upload all their dissemination materials or send them directly to WP leader. Partners are responsible to inform the WP leader of all their dissemination related activities and properly administer it. NNL is responsible for following the planned activities and collect all materials from the related partners after the activity took place. Annually the WP leader will prepare a CD archiving the dissemination materials of that period. One CD will be kept at NNL, a second copy will be sent to the Coordinator.

### 6.2 ARCHIVING TOOLS

#### *Archiving of electronic materials:*

All presentations, event materials, recorded interviews will be preserved in two places: Firstly at the partner responsible for the activity and secondly at the WP leader, NNL. Project website as the main tool for monitoring, reporting, management and dissemination of project will serve as online archiving space for partners. All partners will upload their dissemination materials in order to have them available as annexes to the regular project progress reports.

#### *Archiving of printed materials:*

All printed dissemination materials will be archived by NNL in at least 2 copies (Leaflets, posters, Newsletters, etc.). The partners are therefore asked to provide at least 2 copies of all printed promotional material to the WP leader as soon as possible.

### 6.3 MATERIALS TO ARCHIVE

The following materials should be archived *if available*.

#### *In case of events*

- Event brochure
- Event programme (highlighting ASGARD presentation)

- List of participants
- Pictures taken at the event
- Presentation held

#### *Press*

- Press releases published
- Articles published in any language (link and screenshots if online, copy of the newspaper/magazine if printed)
- Scientific papers (Printed copy)

#### *ASGARD workshops*

- Invitation to the event
- Programme
- List of participants
- List of lecturers
- Pictures taken at the event
- Presentations held
- Workshop/Conference material distributed
- Report on the event

#### *Online cooperations*

- Screenshots

## 7 VISUAL IDENTITY OF ASGARD

This section provides thumbs of the main promotional materials and tools available at the time of this report completion (or update). Full files are available online at [asgardproject.eu](http://asgardproject.eu) and/or on PingPong.

### 7.1. PROJECT WEBSITE:

The project website is available at <http://www.asgardproject.eu>

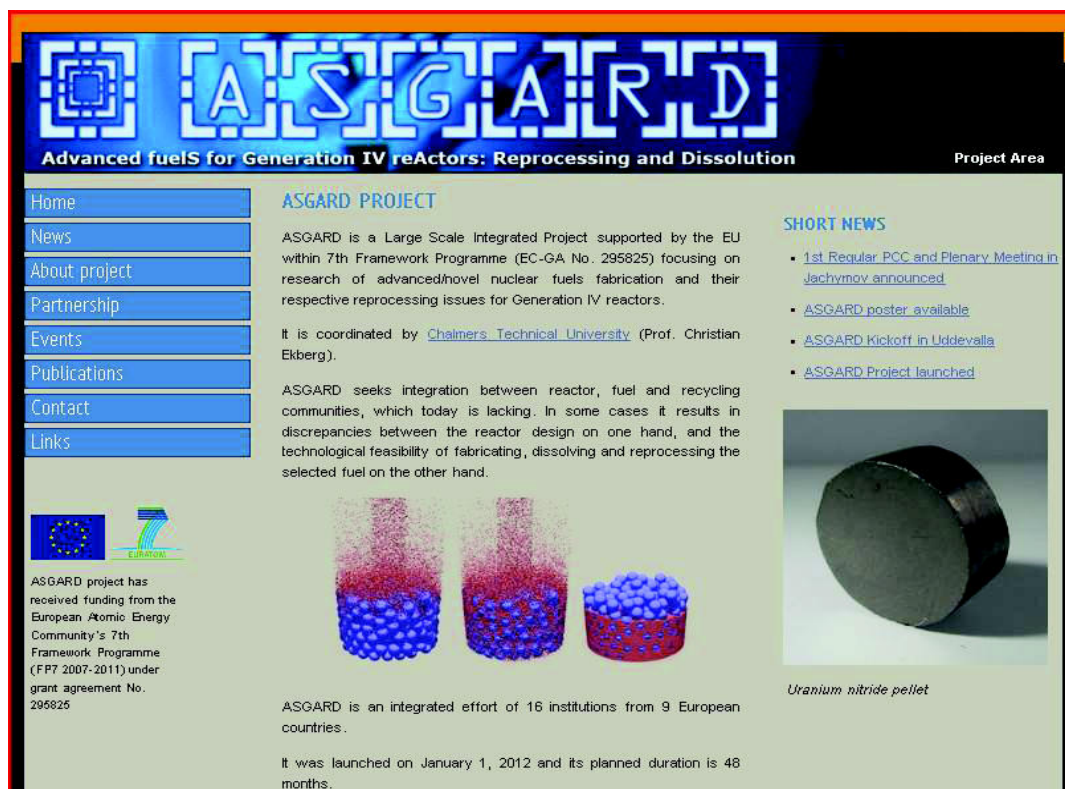


Figure 1 ASGARD website

### 7.2 Logo



Figure 2 ASGARD logo



## 7.3 POSTER



Figure 3 ASGARD poster no. 1

## 7.4 LEAFLET

### ASGARD

29 of 33

ASGARD Deliverable 1.3.2 Communication Action Plan – Update 2013

Dissemination level: PU

Date of issue of this report: 28/03/2013



### Project partners

Chalmers University of Technology – project coordinator	(Sweden)
Forschungszentrum Jülich GmbH	(Germany)
Instytut Chemii i Techniki Jądrowej	(Poland)
National Nuclear Laboratory Limited	(United Kingdom)
Paul Scherrer Institut	(Switzerland)
Nuclear Research and Consultancy Group	(Netherlands)
Karlsruher Institut für Technologie	(Germany)
Commissariat à l'énergie atomique et aux énergies alternatives	(France)
Česká vysoká učení technická v Praze	(Czech Republic)
Kungliga Tekniska Högskolan	(Sweden)
Evaluation s.r.o.	(Czech Republic)
Westinghouse Electric Sweden	(Sweden)
Institutul National de Cercetare-Dezvoltare Pentru Tehnologie Izotopice si Moleculare	(Romania)
University of Leeds	(United Kingdom)
University of Manchester	(United Kingdom)
University of Cambridge	(United Kingdom)

### Core information

ASGARD is a Large Scale Integrated Project supported by the EU within European Atomic Energy Community's 7th Framework Programme (FP7 2007-2011), EC-Grant Agreement No. 295825. Time Frame: January 2012 – December 2015 (duration 48 months)

### Contact

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www.asgardproject.eu

ASGARD project's main objective is to provide a structured R&D framework bridging the research on fuel fabrication and reprocessing issues. The main focus will lie on future fuels for a sustainable nuclear fuels cycle. The main problem today is to tie the recycling of the nuclear fuel to the fabrication of new fuels.

Seen in this context the outline of the work on each of the fuel types will be:

DISSOLUTION    CONVERSION    FABRICATION

The sustainability circle for nuclear fuel where ASGARD project fills the gap between the main focus of FP7 ACSEPT and FP7 FAIRFUELS projects.

### Objective

ASGARD project's main objective is to provide a structured R&D framework bridging the research on fuel fabrication and reprocessing issues. The main focus will lie on future fuels for a sustainable nuclear fuels cycle. The main problem today is to tie the recycling of used nuclear fuel to the fabrication of new fuels, which show efficient recycling (transmutation) behaviour in new reactor systems. ASGARD is coordinated by Chalmers University of Technology, Sweden.

### Scope

In order to make nuclear power sustainable there is a clear need to close the fuel cycle and at the same time, if possible, find methods that shorten the storage time of the waste and increase energy utilization. New fast reactor systems together with a fully developed recycling strategy are needed to achieve this ambitious goal. The scope of the project is to bridge existing knowledge in nuclear fuel manufacturing with existing knowledge in separation techniques used for waste treatment and recovery and to investigate the production and behaviour of new novel and improved nuclear fuels for the next generation of nuclear reactors. The targeted result of the project itself is to interconnect the recycling of the nuclear fuel to the fabrication of new nuclear fuel. Both oxide, nitride and carbide fuels are addressed with focus on dissolution, reprocessing and fabrication behaviour.

### Organisation of the project

### Expected results

Results from carbide fuel production and reprocessing will provide an insight into the safest and most economical carbide fuel design and establish the safest way to process carbide fuel whilst minimizing waste production. Concerning nitride fuels, the impact of carbon and oxygen impurities on the dissolution rate in nitric acid will be clarified. As data from the literature are ambiguous, these results will be of particular importance for industrial application of nitride fuels in Gen-IV systems. From the industrial perspective, an even more important result will be the ability to enrich N-15 at a sufficiently low cost, as well as to recover N-15 during the dissolution process. The feasibility of reaching this goal will depend on the required N-15 enrichment, the corresponding cost of enrichment, losses of N-15 in the fabrication process and the efficiency of N-15 recovery during dissolution. The ASGARD project will provide industrial objectives for the combined performance of these aspects.

### Societal impacts

Seen in this context, ASGARD contributes significantly to increasing the sustainability of nuclear energy by bridging the investigations of the fuel recycling research. ASGARD will investigate the fabrication and dissolution behaviour of novel fuels for fast critical reactors. The knowledge advances of ASGARD will show to Governments, European Utilities and Technology providers that there are several options to the manufacturing and recycling of the novel fuels. It is of vital interest for the project that the outcome will be meaningful for the fuel manufacturing industry. To analyze the results of ASGARD with respect to their applicability in industry, an Industrial Users Group is involved in the project.

Figure 4 ASGARD leaflet

## 7.5 STANDARD PPT TEMPLATE

### ASGARD

ASGARD Deliverable 1.3.2 Communication Action Plan – Update 2013

Dissemination level: PU

Date of issue of this report: 28/03/2013



Figure 5 Frontpage of official ASGARD presentation

## 8 PUBLICITY OBLIGATIONS

The main obligations of all project partners have been defined in Article II.12 of the Annex 2 of the Grant Agreement concluded between the coordinator and the European Commission. The partners should especially understand that:

- 1) **Any publicity**, including at a conference or seminar or any type of information or promotional material (brochure, leaflet, poster, presentation etc), **must specify that the project has received research funding from the European Union, EURATOM programme and display the official European emblem.** When displayed in association with a logo, the European emblem should be given appropriate prominence. This obligation implies no right of exclusive use. It is subject to general third-party use restrictions which do not permit the appropriation of the emblem, or of any similar trademark or logo, whether by registration or by any other means. Under these conditions, project partners are exempted from the obligation to obtain prior permission from the Commission to use the emblem. Detailed information on the EU emblem can be found on the European Commission web page.
- 2) **Any publicity** made by the beneficiaries in respect of the project, in whatever form and on or by whatever medium, **must specify that it reflects only the author's views** and that the European Union and Euratom programme are not liable for any use that may be made of the information.
- 3) **The Commission shall be authorised to publish, in whatever form and on or by whatever medium, the following information:**

the name of the beneficiaries; contact addresses of beneficiaries; the general purpose of the project in the form of the summary provided by the consortium; the amount and rate of the financial contribution foreseen for the project; after the final payment, the amount and rate of the financial contribution accepted by the Commission; the geographic location of the activities carried out; the list of dissemination activities and/or of patent (applications) relating to foreground; the details/references and the abstracts of scientific publications relating to foreground and, where provided pursuant to Article II.30.4 of the Annex 2, the published version or the final manuscript accepted for publication; the publishable reports submitted to it; any picture or any audiovisual or web material provided to the Commission in the framework of the project.

The consortium shall ensure that all necessary authorizations for such publication have been obtained and that the publication of the information by the Commission does not infringe any rights of third parties.



## 9 CONCLUSIONS

By following this strategy, it should be ensured that the dissemination efforts achieve the goals of broad awareness and utilisation of ASGARD results. Next update of the Communication Action Plan is planned for M26 and then for M38.