

 <p>Next Heat Pump Generation <b>NxtHPG</b></p>	<p><b>Grant Agreement Number:</b> 307169  <b>Acronym:</b> NxtHPG  <b>Title:</b>  Next Generation of Heat Pumps  working with Natural fluids</p>
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## **Technical interim workshop: impact on policy and market segments applicable to heat pump technology**

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## Document history

Version	File name	Authors	Revised	Approved	Date
10.10	NxtHPG_1.1	Eirini Litina (EHPA)			20/07/2015
10.10	NxtHPG_1.2	Carla Mon- tagud (UPVLC)	x	x	21/07/2015
10.10	NxtHPG_1.3	Eirini Litina (EHPA)	x	x	24/07/2015



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## Executive summary

This document aims at describing the organizational process of the 1<sup>st</sup> interim technical workshop of the NxtHPG project that took place on 29 May 2015 in Brussels.

The organization of the workshop was strategically delayed in order to make it almost coincident in time with the 8<sup>th</sup> EHPA European Heat pump forum (organized on the 28<sup>th</sup> of May 2015 in Brussels) in order to attract a broader audience and have a greater impact.

The workshop was attended by 55 participants who were introduced to the main research results through a number of presentations regarding the NxtHPG project.



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## 1. Introduction

On the 29<sup>th</sup> of May 2015 the 1<sup>st</sup> interim technical workshop of the NxtHPG project with the title “Breaking out the barriers for the widespread use of natural refrigerants: the NxtHPG project” took place in Brussels at the Renewable Energy House. In this document the following can be found: information with regards to the organization of the event as well as the programme, list of participants and an annex with all the presentations given during the workshop.

## 2. Invitation

The project partners jointly decided during the consortium meeting, that took place on 20<sup>th</sup> of February 2015 in Stockholm, that the NxtHPG 1<sup>st</sup> interim workshop would attract more participants if it was linked to the 8<sup>th</sup> annual EHPA Heat Pump Forum. Therefore, it was agreed to organize it one day after the annual EHPA Forum, which took place on the 28<sup>th</sup> of May 2015 in Brussels. The idea behind this decision was that the participants of the Forum were the main target audience for the workshop and it would be easier and most probable for them to participate in both events if they were taking place the one after the other in the same city.

The invitation of the workshop was sent to a database of 4.000 email addresses of important stakeholders to the heat pump industry such as policy makers from the European Commission (DG Energy, DG Environment, DG Clima and DG Growth), Members of the European Parliament (ITRE and ENVI Committee), National Energy and Environmental Attachés, heat pump and component manufacturers, EHPA members, energy utilities, European Universities and regional representations to the European Union.

Information about the workshop was firstly communicated through EHPA channel’s in early March 2015. The main tools for communicating the details and invitation of the workshop were EHPA’s website, NxtHPG website, newsletter, EHPA’s online calendar and email reminders to a large database. Email reminders were sent every one or two weeks from March to May 2015.

The text that was used in the invitation can be found below:

### **1ST TECHNICAL INTERIM WORKSHOP:**

#### **BREAKING OUT THE BARRIERS FOR THE WIDESPREAD USE OF NATURAL REFRIGERANTS: NXTHPG PROJECT**

The 1st technical workshop of the Next Heat Pump Generation Project (NxtHPG) will introduce the activities of each partner in their effort to develop a safe, reliable and highly efficient heat pump working with hydrocarbons and CO<sub>2</sub>.



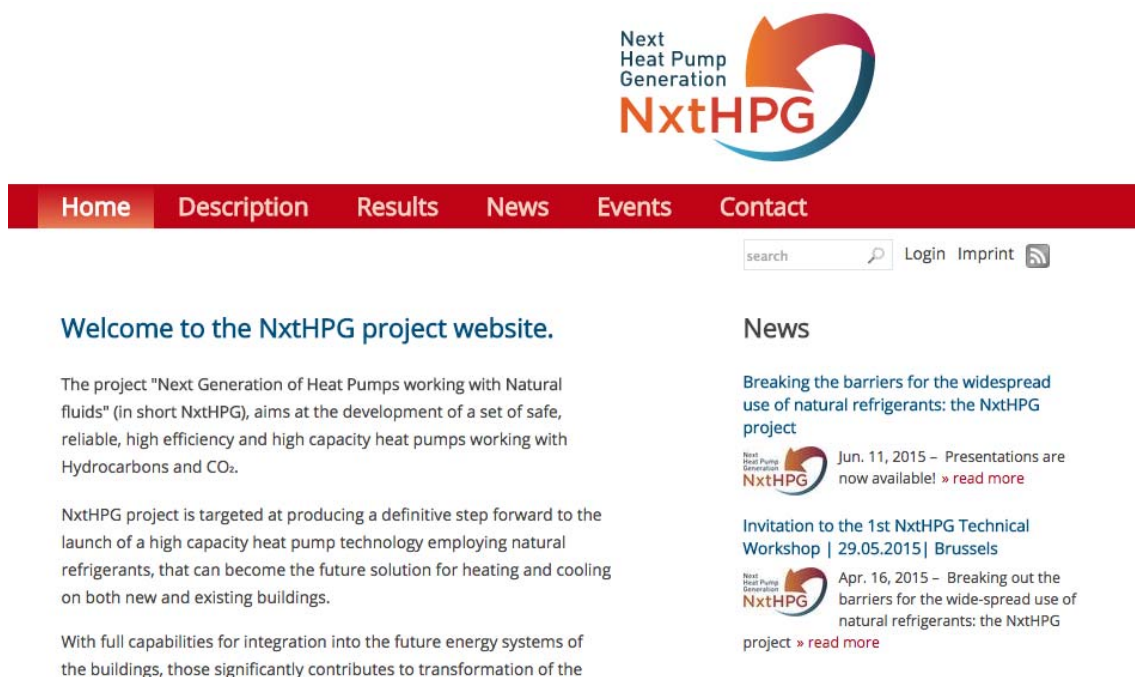
The status of F-Gas Regulation as well as the role of propane heat pumps in the European market will be also investigated.

The NxtHPG project was introduced in December 2012. The main objectives are to develop a set of prototype heat pumps as well as to break down some of the barriers affecting natural refrigerant technology and in particular support the market uptake of hydrocarbon heat pumps.

## 2.1 NxtHPG Website

The invitation and a news item were also published on the [NxtHPG](#) website. You can find below an image (A) of the news item.

A) Image of the project's website where invitation and news about the workshop were published



The screenshot shows the NxtHPG website homepage. At the top is the NxtHPG logo. Below it is a red navigation bar with links: Home, Description, Results, News, Events, Contact. A search bar and links for Login, Imprint, and RSS are on the right. The main content area is divided into two columns. The left column has a heading "Welcome to the NxtHPG project website." followed by three paragraphs of text. The right column has a heading "News" followed by two news items, each with a small NxtHPG logo icon, a date, and a "read more" link.

Moreover, all the presentations of the workshop are available to view and download on the website of both EHPA and NxtHPG website. The links to all presentations are available in the Annex of this deliverable as well.

## 3. Programme

The keynote speaker of the workshop was Mr. Arno Kaschl from the European Commission (DG Clima) who explained the implementation procedure of the F-Gas Regulation. The follow-



ing presentation by Dr. Maul aimed at giving an overview of the European propane heat pump market. The rest of the presentations given by the project partners explained thoroughly the work packages of the project. In the annex all presentations are listed.

The agenda of the workshop can be found below:

#### AGENDA

- 08H30 REGISTRATIONS
- 09H00 WELCOME AND INTRODUCTION BY THOMAS NOWAK, EHPA
- 09H05 IMPLEMENTING THE NEW F-GAS REGULATION | ARNO KASCHL, DG CLIMA
- 09H20 LESSONS LEARNED IN THE MARKET PLACE: SELLING PROPANE HEAT PUMPS DR. JOACHIM MAUL, ALPHA INNOTECH
- 09H45 DESIGN AND SAFETY STANDARDS FOR HC REFRIGERANTS AND CO<sub>2</sub>  
DR. IGNAT TOLSTOREBROV, NTNU
- 10H05 NEXT GENERATION OF HEAT PUMPS WORKING WITH NATURAL FLUIDS: NxtHPG PROJECT | JOSÉ MIGUEL CORBERÁN, UPVLC
- 10H25 HEAT PUMPS WORKING WITH PROPANE: PROTOTYPES DEVELOPED IN THE NxtHPG PROJECT | JOSÉ MIGUEL CORBERÁN, UPVLC (ON BEHALF OF CIATESA)
- 10H45 COFFEE BREAK
- 11H15 HEAT PUMPS WORKING WITH CO<sub>2</sub>: MARKET AND TRENDS AND NEW PRODUCTS SERGIO GIROTTO, ENEX
- 11H35 SCROLL COMPRESSORS FOR PROPANE | PIERRE GINIES, DANFOSS
- 11H55 COMPRESSORS FOR CO<sub>2</sub> | MAURO DALLAI, DORIN
- 12H15 BRAZED PLATE HEAT EXCHANGER SOLUTIONS FOR HC AND CO<sub>2</sub>  
ROLF CHRISTENSEN, ALFA – LAVAL
- 12H35 COIL SOLUTIONS FOR HC AND CO<sub>2</sub> | STEFANO FILIPPINI, LU-VE
- 12H55 DISCUSSION – Q&AS



13H15 NETWORKING LUNCH

At the end of the workshop, EHPA offered a networking lunch to the participants so as to extend the discussions about the project, create networking opportunities for the partners and the audience and share views and opinions about the project.

**4. List of participants**

The workshop was attended by 55 participants. The list of participants together with an image of the room (B) while the presentations were taking place are presented below

(B) The NxtHPG workshop in Brussels on 29 May 2015



List of Participants of the 1<sup>st</sup> Technical NxtHPG workshop

	<b>First Name</b>	<b>Surname</b>	<b>Company</b>
1	Nacer	Achaichia	Honeywell
2	Mark	Anderson	Cortez
3	Luca	Angelino	EGEC





4	Alex	Baumans	Distrigraph
5	Giacomo	Benassi	Galletti
6	Anne-Lee	Bertenstam	SKVP
7	Alberto	Biasco	Panasonic
8	Nicolandrea	Calabrese	ENEA
9	Rolf	Christensen	Alfalaval
10	José Miguel	Corberan	University of Valencia
11	Mauro	Dallai	Dorin
12	Alessandro	De Marchi	Enerblue
13	Stefano	Filippini	LUVE Group
			Austrian Institute of Technolo-
14	Thomas	Fleckl	gy
15	Torben	Funder-Kristensen	Danfoss
16	Luc	Gielen	Celsius Group
17	Dominique	Gielen	Celsius Group
18	Pierre	Ginies	Danfoss
19	Sergio	Giroto	ENEX
20	Peter	Grolla	Sanhua Europe
21	Thomas	Gross	Panasonic
22	Svenn	Hansen	Teknologisk
23	Peter	Jocic	NIBE
24	Arno	Kaschl	DG Clima
25	Frank	Kohlmann	Glen Dimplex
26	Hans-Dieter	Küpper	Sanhua Europe
27	Bruno	Laloy	SWEP
28	Valerie	Laplagne	UNICLIMA
29	Mikael	Le Borgne	ETT
30	Tobias	Lingk	Vaillant
			European Heat Pump Associa-
31	Eirini	Litina	tion
32	Jamy	Logie	Ghent University
			Hungarian Heat Pump Associa-
33	Dr. Tarek	Maiyaleh	tion
34	Joachim	Maul	Alpha Innotec
35	Julien	Meert	Colruyt Group
			Austrian Institute of Technolo-
36	Michael	Monsberger	gy
37	Carla	Montagud Montalva	University of Valencia
38	Agnieszka	Nalepa	Pomorski Region
39	Suzana	Nanevska	20 Nuovi
40	Thomas	Nowak	EHPA
41	Jude	Osagie	
42	Christianna	Papazahariou	LG Electronics
43	Svend	Pedersen	Danish Technological Institute
44	Salvatore	Piscopiello	KTH
45	Silvia	Romano	Grayling



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46	Uwe	Seemann	Dorin
47	Klara	Skacanova	Shecco
48	Christian	Söllner	Emerson
49	Jim	Stewart	Geoscart
50	Ignat	Tolstorebrov	NTNU
51	Raniero	Trinchieri	ENEA
52	Stefaan	Vanderstraeten	Daikin Europe
53	Bruno	Vanslambrouck	Ugent
54	Morgan	Willis	SKVP
55	Michele	Zehnder	CTA



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## Annex – Presentations

The PDF version of the presentations can be found here as presented during the workshop.

1. [Implementing the new F-Gas regulation](#) | Arno Kaschl, DG CLIMA, EU Commission
2. [Lessons learned in the market place: propane heat pumps](#) | Dr. Joachim Maul, Alpha Innotec
3. [Design and safety standards for HC refrigerants and CO<sub>2</sub>](#) | Dr. Ignat Tolstorebrov, NTNU
4. [Next Generation of Heat pumps working with natural fluids](#) | José Miguel Corberán, UPVLC
5. [Heat pumps working with propane: prototypes in the NxtHPG project](#) | José Miguel Corberán, UPVLC (on behalf of Miguel Zamora, CIAT)
6. [Heat pumps working with CO<sub>2</sub>: market trends and new products](#) | Sergio Girotto, ENEX
7. [Scroll compressors for propane](#) | Pierre Ginies, Danfoss
8. [Compressors for CO<sub>2</sub>](#) | Mauro Dallai, Dorin
9. [Brazed plate heat exchanger solutions for HC and CO<sub>2</sub>](#) | Rolf Christensen, Alfa-Laval
10. [Coil solutions for HC and CO<sub>2</sub>](#) | Stefano Filippini, Lu-Ve/Users/Eirini/Box Sync/02 Meetings/\_2015/20150529 NxtHPG workshop/photos/IMG\_5471.JPG