Annex I

Figures

T_{air}	$T_{w\,in}$	$T_{w\,out}$	Q_h	$\dot{V}_w$	P_{el}	PLR	AEF	GUE
°C	°C	°C	kW	m³/h	W	%	-	-
7.0	35.0	50.0	16,890	0.980	397	100.0	42.54	**1.53**
7.0	28.0	35.0	19,150	2.380	237	100.0	81.00	**1.74**

Fig. 1

GUE2 (NCV)	FR	DE	UK	PL	IT
Efficiency (SH only)	131%	131%	132%	135%	151%
Efficiency (DHW only)	135%	121%	na	na	na
Efficiency (SH&DHW)	124%	129%	128%	+133%	138%
Efficiency increase vs. cond. boiler (SH&DHW)	na	+34%	na	+31%	na
Efficiency increase vs. previous boiler (SH&DHW)	na	+39%	+30%	na	na

Fig. 2

	Location	System	Eff_Boiler_gcv	GUE_gcv	PER
Radiator w Heating curve	Strasbourg	GAHP	0,89	1,27	1,21
	Strasbourg	EHP	n.a.	0,00	1,09
	Strasbourg	Condensing Boiler	n.a.	0,90	0,89
	Strasbourg	Condensing Boiler+Solar	n.a.	0,93	0,92

Fig. 4

	Location	System	Eff_Boiler_gcv	GUE_gcv	PER
Floor Heating	Strasbourg	GAHP	0,89	1,33	1,27
	Strasbourg	EHP	n.a.	0,00	1,21
	Strasbourg	Condensing Boiler	n.a.	0,92	0,91
	Strasbourg	Condensing Boiler+Solar	n.a.	0,95	0,93

Fig. 5

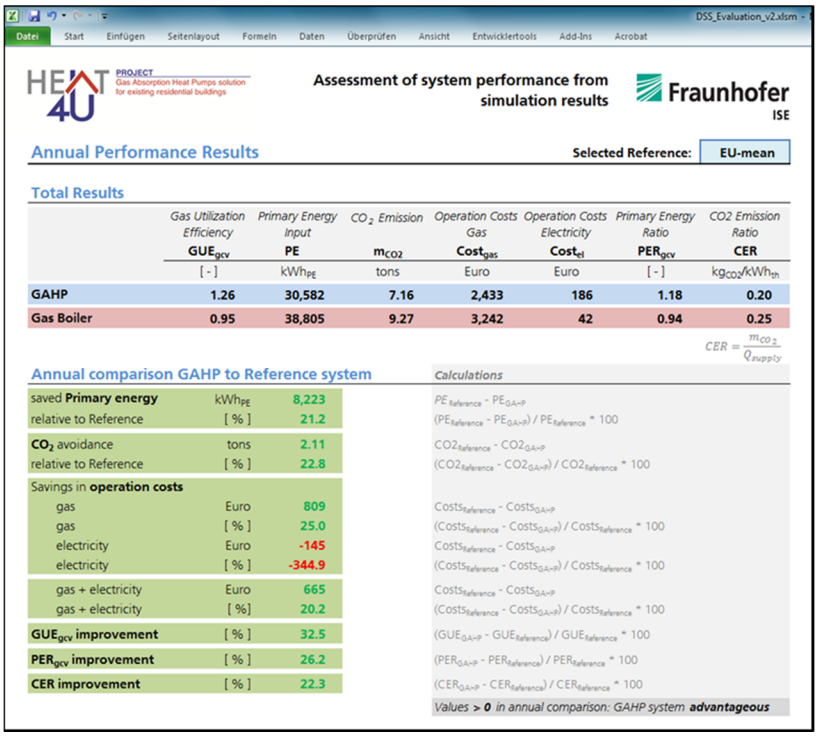

Fig. 6

	First Scenario (Limited Market Penetration)	Second Scenario (Medium Market Penetration)	Third Scenario (High Market Penetration)
	20,000 units/year (6th year)	80,000 units/year (6th year)	150,000 units/year (6th year)
CO2 Emissions (kton / year) reduction	101,764	407,058	763,234
Use of renewable energy (MWh)	362,646	1,450,585	2,719,847
Reduction of Space Heating and DHW Energy Bill for Euopean Citizens (installed based on year 6) (MEuro)	23.5	94.1	176.5

Table 3.1.1 Reduced CO2 emissions, increase of RES use and annual energy bill reduction in the three scenarios.

Fig 7 Home page of HEAT4U web site

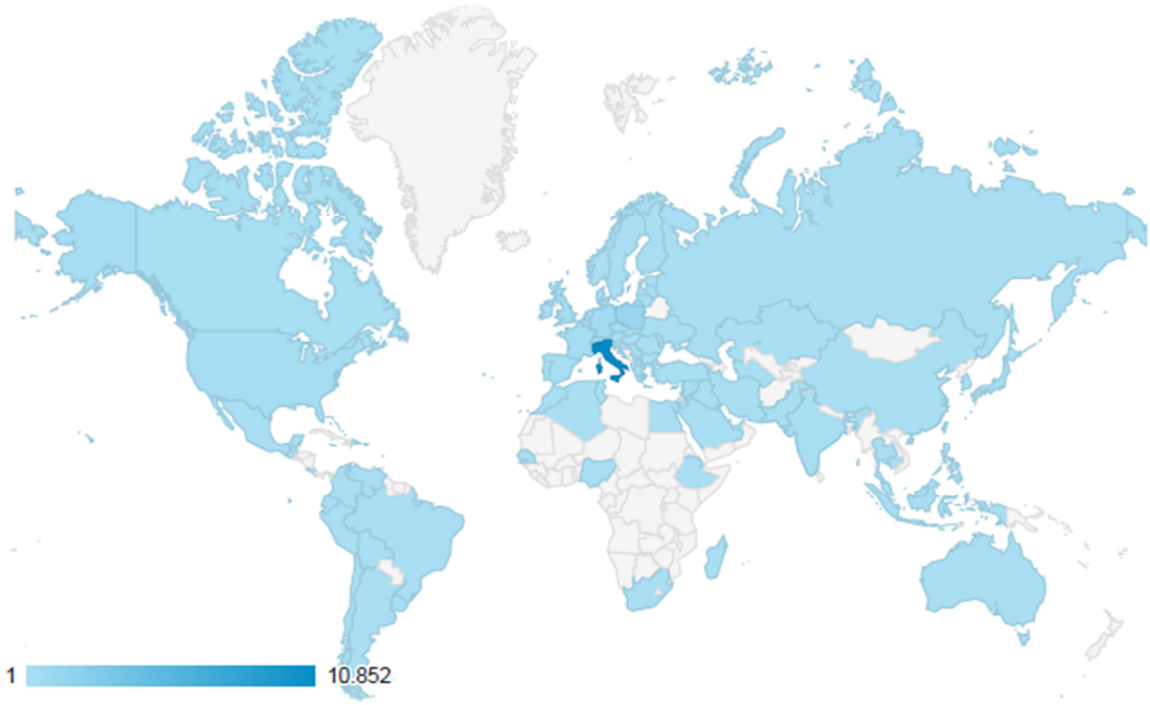

Fig. 8 Overlay map with number of visits from each country