

Production of heat – by type

Terajoules

Table Notes

Direct use geothermal represents heat used directly for district heating, agriculture etc. without a commercial transaction taking place.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification.

Direct use solar thermal represents heat used for the production of domestic hot water or for the seasonal heating of swimming pools (e.g. flat plate collectors, mainly of the thermosyphon type) without a commercial transaction taking place.

Figure 84: Heat production by region, 1990-2014

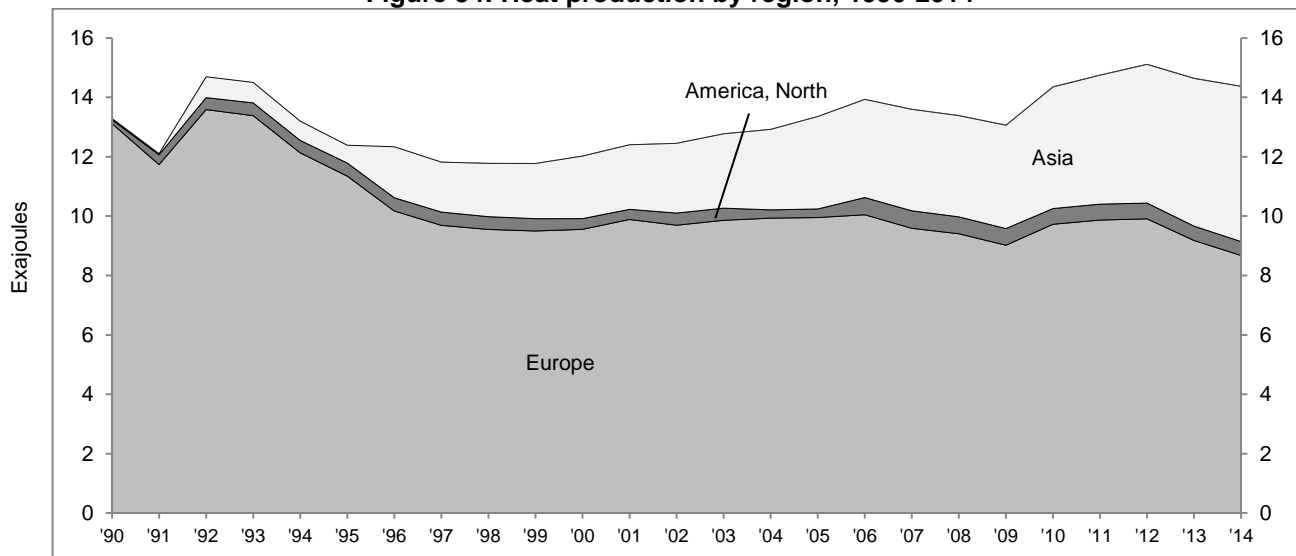


Figure 85: Major heat producing countries, 2014

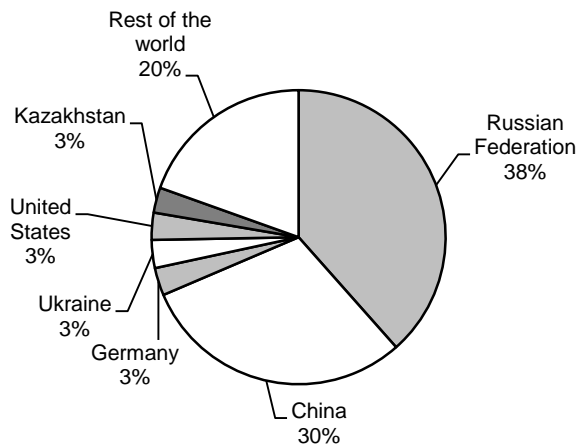


Figure 86: World heat production by type, 2014

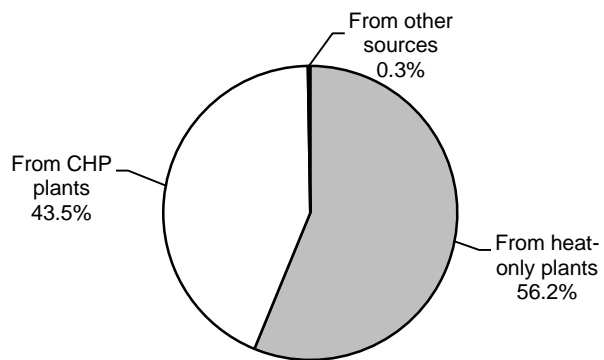


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Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
World	2011	14,303,353	25,674	6,207	27,734	29,584	28,137	345,025	124,637	251,667
	2012	14,658,369	27,630	6,147	27,848	30,630	33,379	345,763	136,831	288,693
	2013	14,142,688	28,583	5,927	27,587	78,672	29,249	344,206	141,144	298,708
	2014	13,869,399	29,933	6,890	26,464	71,982	30,981	352,976	136,711	307,338
Africa	2011	12,421	..	716	..	3,865	..	..	..	4,382
	2012	12,923	..	749	..	4,364	..	..	..	4,822
	2013	12,895	..	786	..	3,748	..	..	..	5,531
	2014	11,265	..	815	..	3,355	..	..	..	6,136
Mayotte	2011	..	..	..	..	..	..	..	..	4
	2012	..	..	..	..	..	..	..	..	*4
	2013	..	..	..	..	..	..	..	..	*5
	2014	..	..	..	..	..	..	..	..	*6
Namibia	2011	..	..	..	..	..	..	..	..	72
	2012	..	..	..	..	..	..	..	..	72
	2013	..	..	..	..	..	..	..	..	72
	2014	..	..	..	..	..	..	..	..	72
Réunion	2011	1,721	..	716	..	..	..	..	..	..
	2012	2,023	..	749	..	..	..	..	..	..
	2013	1,995	..	786	..	..	..	..	..	..
	2014	2,016	..	815	..	..	..	..	..	..
Senegal	2011	..	..	..	..	1,124	..	..	..	..
	2012	..	..	..	..	1,298	..	..	..	..
	2013	..	..	..	..	698	..	..	..	..
	2014	..	..	..	..	731	..	..	..	..
South Africa	2011	..	..	..	..	..	..	..	..	3,005
	2012	..	..	..	..	..	..	..	..	3,253
	2013	..	..	..	..	..	..	..	..	3,804
	2014	..	..	..	..	..	..	..	..	4,241
Swaziland	2011	*10,700	..	..	..	..	..	..	..	..
	2012	*10,900	..	..	..	..	..	..	..	..
	2013	*10,900	..	..	..	..	..	..	..	..
	2014	9,249	..	..	..	..	..	..	..	..
Tunisia	2011	..	..	..	..	2,741	..	..	..	1,301
	2012	..	..	..	..	3,066	..	..	..	1,493
	2013	..	..	..	..	3,050	..	..	..	1,650
	2014	..	..	..	..	2,624	..	..	..	1,817
America, North	2011	536,236	..	..	..	..	..	..	9,285	67,766
	2012	530,927	..	..	..	..	..	..	17,687	94,312
	2013	483,191	..	..	..	..	..	..	18,268	98,358
	2014	467,289	..	..	..	..	..	..	10,969	102,538
Canada	2011	26,773	..	..	..	..	..	..	..	1,770
	2012	28,988	..	..	..	..	..	..	..	1,553
	2013	28,679	..	..	..	..	..	..	..	1,630
	2014	37,679	..	..	..	..	..	..	..	1,702
Greenland	2011	826	..	..	..	..	..	..	..	..
	2012	1,140
	2013	1,099
	2014	1,003
Mexico	2011	5,665
	2012	6,427
	2013	7,236
	2014	8,064

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United States	2011	508,637	9,285	60,331
	2012	500,799	17,687	86,332
	2013	453,413	18,268	89,492
	2014	428,607	..	..	..	..	..	..	10,969	92,772
America, South	2011	..	..	..	..	0	..	..	102	263
	2012	..	..	..	..	0	..	..	102	1,058
	2013	..	..	..	..	1,091	..	..	102	1,091
	2014	..	..	..	..	1,936	..	..	102	1,116
Chile	2011	..	..	..	..	0	..	..	..	..
	2012	..	..	..	..	0	..	..	..	772
	2013	..	..	..	..	1,091	..	..	..	780
	2014	..	..	..	..	1,936	..	..	..	780
Ecuador	2011	..	..	..	..	..	..	..	102	..
	2012	..	..	..	..	..	..	..	102	..
	2013	..	..	..	..	..	..	..	102	..
	2014	..	..	..	..	..	..	..	102	..
Peru	2011	..	..	..	..	..	..	..	..	263
	2012	..	..	..	..	..	..	..	..	286
	2013	..	..	..	..	..	..	..	..	311
	2014	..	..	..	..	..	..	..	..	336
Asia	2011	4,325,833	36	5,183	..	3,767	3,662	4,608	71,210	100,008
	2012	4,654,212	36	4,943	..	3,420	3,791	4,332	71,838	104,357
	2013	4,954,199	0	4,569	..	3,976	3,878	8,370	72,819	105,458
	2014	5,207,604	0	5,301	..	3,752	3,878	7,629	74,820	104,480
Armenia	2011	186	..	..	..	..	..	..	..	..
	2012	90	..	..	..	..	..	..	..	..
	2013	127	..	..	..	..	..	..	..	..
	2014	*127	..	..	..	..	..	..	..	..
Azerbaijan	2011	4,536	..	..	..	..	..	..	..	..
	2012	5,004	..	..	..	..	..	..	..	..
	2013	5,436	..	..	..	..	..	..	..	..
	2014	6,778	..	..	..	..	..	..	..	..
China	2011	3,491,768	..	..	..	..	..	..	..	..
	2012	3,787,310	..	..	..	..	..	..	..	..
	2013	4,131,207	..	..	..	..	..	..	..	..
	2014	4,334,113	..	..	..	..	..	..	..	..
Cyprus	2011	31	..	..	..	..	..	..	44	2,625
	2012	31	..	..	..	..	..	..	62	2,700
	2013	42	..	..	..	..	..	..	62	2,751
	2014	45	..	..	..	..	..	..	65	2,796
Georgia	2011	0	36	..	..	..	..	..	377	0
	2012	0	36	..	..	..	..	..	380	6
	2013	0	0	..	..	..	..	..	520	47
	2014	0	0	..	..	..	..	..	546	77
Israel	2011	..	..	..	..	..	..	..	..	46,070
	2012	..	..	..	..	..	..	..	..	46,070
	2013	..	..	..	..	..	..	..	..	46,070
	2014	..	..	..	..	..	..	..	..	46,070
Japan	2011	14,202	..	..	..	..	3,662	4,608	7,535	18,726
	2012	13,883	3,791	4,332	7,409	17,098
	2013	13,697	3,878	4,377	7,343	16,905
	2014	13,697	3,878	4,377	7,242	15,391

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Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Kazakhstan	2011	405,407	..	..	..	..	..	..	..	..
	2012	418,081	..	..	..	..	..	..	..	..
	2013	396,689	..	..	..	..	..	..	..	..
	2014	398,902	..	..	..	..	..	..	..	..
Korea, Republic of	2011	199,727	..	..	..	3,767	..	..	2,002	1,148
	2012	216,087	..	..	..	3,420	..	..	2,733	1,099
	2013	196,855	..	..	..	3,976	..	..	3,642	1,164
	2014	203,792	..	..	..	3,752	..	..	4,542	1,193
Kyrgyzstan	2011	13,389	..	..	..	..	..	..	..	..
	2012	13,534	..	..	..	..	..	..	..	..
	2013	12,525	..	..	..	..	..	..	..	..
	2014	13,858	..	..	..	..	..	..	..	..
Lebanon	2011	..	..	..	..	..	..	..	..	704
	2012	..	..	..	..	..	..	..	..	839
	2013	..	..	..	..	..	..	..	..	894
	2014	..	..	..	..	..	..	..	..	1,015
Mongolia	2011	36,354	..	..	..	..	..	..	..	..
	2012	39,029	..	..	..	..	..	..	..	..
	2013	39,824	..	..	..	..	..	..	..	..
	2014	42,003	..	..	..	..	..	..	..	..
Other Asia	2011	..	..	..	..	..	..	..	..	4,358
	2012	..	..	..	..	..	..	..	..	4,390
	2013	..	..	..	..	..	..	..	..	4,343
	2014	..	..	..	..	..	..	..	..	4,318
State of Palestine	2011	..	..	5,183	..	..	..	..	..	..
	2012	..	..	4,943	..	..	..	..	..	..
	2013	..	..	4,569	..	..	..	..	..	..
	2014	..	..	5,301	..	..	..	..	..	..
Tajikistan	2011	387	..	..	..	..	..	..	..	..
	2012	405	..	..	..	..	..	..	..	..
	2013	408	..	..	..	..	..	..	..	..
	2014	1,063	..	..	..	..	..	..	..	..
Turkey	2011	50,917	..	..	..	..	..	..	61,252	26,377
	2012	51,317	..	..	..	..	..	..	61,254	32,155
	2013	51,633	..	..	..	..	..	3,993	61,252	33,284
	2014	84,796	..	..	..	..	..	3,252	62,425	33,620
Turkmenistan	2011	8,311	..	..	..	..	..	..	..	..
	2012	8,567	..	..	..	..	..	..	..	..
	2013	9,108	..	..	..	..	..	..	..	..
	2014	9,846	..	..	..	..	..	..	..	..
Uzbekistan	2011	100,619	..	..	..	..	..	..	..	..
	2012	100,874	..	..	..	..	..	..	..	..
	2013	96,648	..	..	..	..	..	..	..	..
	2014	98,584	..	..	..	..	..	..	..	..
Europe	2011	9,428,863	25,638	308	27,734	21,952	24,475	339,229	35,313	67,127
	2012	9,460,307	27,594	455	27,848	22,846	29,588	340,524	37,241	71,305
	2013	8,692,404	28,583	572	27,587	69,857	25,371	334,986	39,286	74,647
	2014	8,183,242	29,933	774	26,464	62,939	27,103	344,497	39,158	79,359
Albania	2011	243
	2012	197
	2013	199
	2014	214

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Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Austria	2011	79,196	524	51	..	99	..	..	278	6,990
	2012	83,927	577	57	..	99	..	..	346	7,239
	2013	86,836	593	57	..	99	..	..	329	7,383
	2014	79,299	543	61	..	95	..	..	268	7,561
Belarus	2011	260,279	..	..	..	..	..	..	..	..
	2012	269,754	..	..	..	..	..	..	..	..
	2013	263,853	..	..	..	..	..	..	..	..
	2014	254,934	..	..	..	..	..	..	..	..
Belgium	2011	35,098	55	..	..	2,930	..	..	..	601
	2012	32,124	60	..	..	4,835	..	..	..	641
	2013	29,115	68	..	..	8,499	..	..	..	779
	2014	27,121	60	..	..	9,304	..	..	..	857
Bosnia and Herzegovina	2011	6,355	..	..	..	..	..	..	..	..
	2012	6,075	..	..	..	..	..	..	..	..
	2013	5,722	..	..	..	..	..	..	..	..
	2014	5,000	..	..	..	..	..	..	..	..
Bulgaria	2011	54,518	..	..	922	2,992	..	..	1,380	579
	2012	54,649	..	..	940	2,235	..	..	1,400	645
	2013	50,370	..	..	655	1,992	..	..	1,400	798
	2014	51,930	..	..	604	1,645	..	..	1,400	824
Croatia	2011	12,065	..	..	..	..	..	..	287	254
	2012	11,625	..	..	..	..	..	..	291	298
	2013	11,738	..	..	..	..	..	..	286	341
	2014	10,127	..	..	..	..	..	..	446	385
Czechia	2011	120,734	..	..	919	1,209	102	332	..	455
	2012	125,383	..	..	981	1,341	105	348	..	561
	2013	122,516	..	..	1,035	1,406	94	350	..	630
	2014	119,947	..	..	872	877	189	340	..	665
Denmark	2011	129,843	83	217	..	..	264	2,682	..	518
	2012	133,125	144	345	..	..	688	2,646	..	534
	2013	132,601	114	475	..	..	596	2,252	..	552
	2014	118,409	83	662	..	..	494	2,488	..	565
Estonia	2011	22,887	..	..	..	..	..	..	..	..
	2012	24,473	..	..	..	..	..	..	..	..
	2013	23,028	..	..	..	..	..	..	..	..
	2014	21,812	..	..	..	..	..	..	..	..
Finland	2011	180,873	..	..	..	2,925	1,400	1,204	..	43
	2012	191,553	..	..	..	3,698	1,866	890	..	47
	2013	179,584	..	..	..	4,475	1,792	1,043	..	52
	2014	174,077	..	..	..	4,526	2,236	960	..	57
France	2011	161,154	3,049	..	..	..	..	..	1,280	2,986
	2012	132,614	3,242	..	..	..	47	..	1,280	3,420
	2013	130,457	3,937	..	..	..	75	..	1,280	3,748
	2014	117,775	3,984	..	..	..	270	..	1,280	4,128
Germany	2011	460,483	51	..	..	..	..	6,703	2,477	23,184
	2012	474,421	85	11	..	..	..	6,296	2,682	24,109
	2013	480,642	207	1	..	..	..	7,461	2,852	24,408
	2014	430,982	304	11	..	..	..	7,043	3,487	26,221
Greece	2011	2,256	970	7,656
	2012	1,889	909	7,720
	2013	1,738	812	7,831
	2014	2,073	490	8,029

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Hungary	2011	48,432	271	5	508	4,080	242
	2012	48,574	395	5	528	4,071	242
	2013	46,975	574	0	505	965	4,104	250
	2014	39,672	1,166	0	456	..	..	1,497	4,048	260
Iceland	2011	..	20,816	..	..	..	674	..	4,411	..
	2012	..	22,241	..	..	..	675	..	4,416	..
	2013	..	22,060	..	..	..	675	..	4,087	..
	2014	..	22,443	..	..	..	675	..	4,543	..
Ireland	2011	..	..	..	..	..	..	..	..	380
	2012	..	..	..	..	..	..	..	..	427
	2013	..	..	..	..	..	..	..	..	472
	2014	..	..	..	..	..	..	..	..	511
Italy	2011	218,519	589	1	..	..	..	..	5,243	5,877
	2012	206,335	650	1	..	..	..	..	4,950	6,503
	2013	215,757	650	2	..	..	..	..	4,987	7,040
	2014	205,188	764	2	..	..	..	..	4,660	7,517
Latvia	2011	24,985	..	..	..	..	8	7	..	..
	2012	26,840	..	..	..	..	10	7	..	..
	2013	26,227	..	..	..	..	9	13	..	..
	2014	25,740	..	..	..	..	7	..	..	..
Liechtenstein	2011	..	..	32	..	..	..	..	..	..
	2012	..	..	34	..	..	..	..	..	..
	2013	..	..	36	..	..	..	..	..	..
	2014	..	..	37	..	..	..	..	..	..
Lithuania	2011	35,583	67	..	..	10,225	12	..	..	..
	2012	36,489	79	..	..	9,877	10	..	..	..
	2013	34,217	35	..	..	9,363	10	..	..	..
	2014	32,420	39	..	..	10,832	9	..	..	..
Luxembourg	2011	3,150	..	..	..	..	..	..	..	63
	2012	3,076	..	..	..	..	..	..	..	88
	2013	3,247	..	..	..	..	..	..	..	104
	2014	3,587	..	..	..	..	..	..	..	128
Malta	2011	5	..	..	..	..	..	..	..	194
	2012	8	..	..	..	..	..	..	..	216
	2013	1	..	..	..	..	..	..	..	173
	2014	1	..	..	..	..	..	..	..	178
Netherlands	2011	153,951	..	..	..	..	..	..	316	1,040
	2012	149,117	..	..	..	..	..	..	495	1,070
	2013	150,090	..	..	..	..	..	..	993	1,106
	2014	147,157	..	..	..	..	..	..	1,502	1,128
Norway	2011	17,236	..	..	..	615	3,326	805	..	..
	2012	16,273	..	..	..	21	4,351	1,174	..	..
	2013	18,260	..	..	..	1,194	5,076	1,164	..	..
	2014	17,422	..	..	..	3,200	4,091	1,313	..	..
Poland	2011	297,957	..	..	..	913	4	101	531	434
	2012	308,168	..	..	..	685	5	191	661	544
	2013	302,848	..	..	..	891	5	128	778	639
	2014	275,602	..	..	..	1,205	4	76	847	720
Portugal	2011	20,600	44	65	2,491
	2012	21,419	55	65	2,820
	2013	25,523	46	52	3,046
	2014	21,367	55	55	3,218

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Republic of Moldova	2011	11,402
	2012	10,876
	2013	10,640
	2014	10,466
Romania	2011	98,853	7	923	2
	2012	89,338	4	..	..	..	..	..	902	4
	2013	84,803	9	..	..	..	..	..	1,049	9
	2014	77,756	217	..	..	..	..	..	835	23
Russian Federation	2011	6,038,583	..	..	15,482	..	..	327,324	..	..
	2012	6,063,487	..	..	15,109	..	..	328,963	..	..
	2013	5,374,829	211	..	15,136	..	..	321,571	..	..
	2014	5,187,219	191	..	14,982	..	..	330,772	..	..
Serbia	2011	41,440	..	..	..	..	..	..	265	..
	2012	35,203	..	..	..	..	..	..	260	..
	2013	34,313	..	..	..	..	..	..	187	..
	2014	30,694	..	..	..	..	..	..	234	..
Slovakia	2011	41,351	104	2	2,210	..	9	71	60	211
	2012	40,905	95	2	2,115	..	45	9	55	222
	2013	40,192	102	1	2,147	..	49	39	69	233
	2014	32,825	120	1	1,795	..	55	8	56	241
Slovenia	2011	9,698	22	..	..	..	..	..	1,169	376
	2012	9,477	22	..	..	..	..	..	1,133	412
	2013	9,405	23	..	..	..	..	..	1,250	440
	2014	8,164	19	..	..	..	..	..	1,275	455
Spain	2011	..	..	..	..	..	..	..	703	8,576
	2012	..	..	..	..	..	..	..	737	9,226
	2013	..	..	..	..	..	..	..	758	10,006
	2014	..	..	..	..	..	..	..	789	10,828
Sweden	2011	159,916	..	..	..	..	18,544	..	..	461
	2012	174,779	..	..	..	..	21,665	..	..	464
	2013	173,253	..	..	..	..	16,895	..	..	468
	2014	160,891	..	..	..	..	19,005	..	..	468
Switzerland	2011	18,399	..	..	1,290	..	132	..	10,418	1,655
	2012	18,866	..	..	1,370	..	121	..	12,184	1,853
	2013	19,674	..	..	1,270	..	95	..	13,630	2,042
	2014	17,313	..	..	1,190	..	68	..	12,616	2,212
T.F.Yug.Rep. Macedonia	2011	2,669	..	..	..	..	..	..	424	..
	2012	2,463	..	..	..	..	..	..	371	..
	2013	2,131	..	..	..	..	..	..	350	..
	2014	1,956	..	..	..	..	..	..	294	..
Ukraine	2011	602,027	..	..	6,403	..	..	..	..	..
	2012	592,624	..	..	6,805	..	..	..	..	..
	2013	537,503	..	..	6,839	41,892	..	..	..	..
	2014	406,078	..	..	6,565	31,200	..	..	..	..
United Kingdom	2011	58,123	..	..	..	..	..	..	33	1,859
	2012	64,181	..	..	..	..	..	..	33	2,000
	2013	64,117	..	..	..	..	..	..	33	2,097
	2014	68,024	..	..	..	..	..	..	33	2,180
Oceania	2011	1,188	8,727	12,121
	2012	907	9,963	12,839
	2013	850	10,669	13,623
	2014	850	11,662	13,709

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Australia	2011	11,630
	2012	12,348
	2013	13,132
	2014	13,218
New Caledonia	2011	111
	2012	111
	2013	111
	2014	111
New Zealand	2011	1,188	8,727	364
	2012	907	9,963	364
	2013	850	10,669	364
	2014	850	11,662	364
Niue	2011	16
	2012	16
	2013	16
	2014	16