

# Report from the WGs

Drilling

# A1 – Developing the next generation of deep geothermal electricity and heating/cooling technologies

Deep drilling	13	Increase performance and life time of bottom hole assembly
	14	Improve drilling liquids for Geothermal deep drilling and methods for compensating unwanted loss of circulation zones
	15	Long casing cementing
	16	Stimulation methods for deep wells
	17	Deep drilling techniques and model based optimization solutions.
	18	Reduce the cost of drilling technologies (percussion drilling, laser, electro-pulse-boring (EPB)...) for deep hard rocks
	19	Develop novel drilling technologies by 2020: in laboratories (by 2015), on site (by 2017), on a demonstration plant (by 2020)
	20	Developing innovative techniques (drill bits/muds) for soft formations
	21	Developing drill bits for hard formations (granite/basalt) with laser/plasma
	22	Advanced/new metallic and non-metallic materials (polymers...) for (deep) wells
23	One hole: re-use of hydrocarbon wells, failed exploration wells, and extended reach targets	

## A2 – Close-to-market demonstration of competitive deep geothermal electricity and heating/cooling

Deep drilling	55	Deep drilling - Mud down hole hammer in 12''1/4 and 8''1/2 size able to drill down to 6000 m
	56	Improvement of drilling engineering design, crew/staff training: