

Table 1. Climate variables, seasons and terciles for which SEAS5 had significant skill, as assessed by comparison to ERA5 over the period 1993-2016.

Site	Number of skilful /total combinations ^a	Skilful climate variable/season/tercile combinations		
		Boreal season	Variable ^b	Tercile
Australia	9/108	Spring (Mar-May)	rlds	above
		Autumn (Sep-Nov)	cc	above
			petH	above
			psl	above
			rsds	above
			tas	normal
		Winter (Dec-Feb)	psl	above
			tdps	above
		Summer (June-Aug)	cc	normal
		Spring (Mar-May)	tdps	above
Germany	3/96	Winter (Dec-Feb)	rlds	normal
			vas	below
Ireland	0/18		None	
Norway	10/96	Spring (Mar-May)	psl	normal
			psl	above
			tas	above
			tcc	normal
			tdps	below
			uas	above
			vas	below
		Winter (Dec-Feb)	rlds	normal
			rsds	above
			tcc	below
Spain	5/108	Early summer (May-Jul)	rsds	above
		Autumn (Sep-Nov)	cc	above
		Spring (Mar-May)	cc	above
			psl	above
		Summer (Jun-Aug)	cc	above
			tdps	above

^a ROCSS were calculated for z total data ‘slices’, where z = x met variables * y seasons * 3 terciles.

^b Met variables abbreviations: psl: surface pressure, tcc: total cloud cover, uas: 10 m U wind component, vas: 10 m V wind component, tas: 2 m temperature, tdps: 2 m dewpoint temperature, rsds: downwards surface solar radiation, rlds: downwards surface thermal radiation, tp: total precipitation.