	1. High Temperature Turbine Blade Alloy for Additive Manufacturing					
WG Name	Additive	Chair	Vladimir Navrotsky	Co-chair	Ludo Bautmans	
	Manufacturing	•	(Siemens Energy)		(Oerlikon)	
Project lead	Yogiraj Pardhi (Sulzer)					
Core team	Joy Sumner (Cranfield University); Steve Nardone (Engie Laborelec); John Scheibel					
	(EPRI); Alex Bridges (EPRI); Boby Noble (EPRI); Alex Gontcharov (Liburdi); Paul Lowen					
	(Liburdi); Robert Tollett (Liburdi); Scott Hastie (Liburdi); Siavash Pahlavanyali (RINA);					
	Roberto Sorci (RINA); Oriana Tassa (RINA); Stefano Lionetti (RINA); Ulli Klenk (Siemens					
	Energy); Vladimir Navrotsky (Siemens Energy);; Yogiraj Pardhi (Sulzer); Pascal Jacques					
	(UCLouvain); Sarah Ogden (Uniper)					
ETN officer	Rene Vijgen, Nicol	ò Cairo				
Initiative description						
Scope definition						
The scope of thi	s activity is to review	v the pub	blicly available information	n and conne	ct with alloy development	
companies, with	the aim of searchin	g develo	pped alloys to low TRL (1	-3). The pro	cess consists of selection	
of two to three	alloys to evaluate	printabil	lity and assess key me	chanical pro	operties (Fatigue, Creep,	
Oxidation, Etc.).	ina blada goometry	a seleo	ct alloy will finally be dei	nonstrated t	by using a representative	
	nie blade geometry.					
	ig high tomporature bl	ada allov	(early TPL) and develor	validate it t	TPI 3/4 lovel	
Minimur	night temperature bio	aue alloy			M	
 Winning High-ter 	morature alloy with		motal temporature capat	bility for HD t	urbino blados	
Expected outco		1000 C				
R&D leap to tac	kle additive Manufac	turing of	blade one with the expe	ected outcom	ne of increasing efficiency	
and supporting (decarbonisation.				to of morodoling emeloney	
Implementation of the activities						
		Implem	entation of the activitie	S		
Project executi	on	Implem	entation of the activitie	S		
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Demonstration materials high temperature capability using material property characterisation and printability using first article inspection using representative gas turbine blade geometry.