

## Green Energy 2021: Status and prospects of adoption of WBG power devices – Swedish perspective

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### Abstract

SiC Power Center was founded in 2012 by RISE Acreo, Swerea KIMAB and the Royal Institute of Technology (KTH) with financial support from Sweden's Innovation Agency (Vinnova) and Swedish Energy Agency. SiC Power Center is a platform for cooperation between industry, research institutes and academia within the whole value chain from material to systems. Leading industrial companies within automotive, energy systems and power electronics in Sweden and other research institutes have been members of the Center. The center has ambition; (a) to explore the potential of WBG electronics for future applications, increased competitiveness and sustainable development by joining resources, competences and knowledge, (b) to promote the introduction of WBG power electronics in products and applications where high energy efficiency, compactness and higher operation temperature provide significant system advantages and (c) to inspire and involve others. The main objectives are increased adoption of WBG devices in

power electronic products and applications for energy savings, environmental gains and competitive advantages for Swedish industry. Since last year the name of the center is WBG Power Center and it has at present 16 companies and research groups as members. RISE Acreo is host of the center. RISE Acreo and WBG (SiC) Power Center organizes yearly conference (ISICPEAW, IWBGPPEAW) with focus on power electronic applications of WBG devices. The conference has been organized since 2007 and this year changed name to SCAPE. Overview and highlights of the selected industrial and research projects financed by the Swedish Innovation Agency (Vinnova) and Swedish Energy Authority programs and by SiC Power Center will be presented. The selected examples demonstrate revolutionary gains in energy savings in WBG based power electronic energy conversion systems for a variety of applications. A summary of related projects in the areas of material, technology and device R&D in Sweden, will also be given.