Light weighting represents the one of the nearest short term solutions to help the automotive industry meet the Corporate Average Fuel Economy (CAFÉ) standards. Today’s interest in magnesium alloys for automotive applications is based on its high strength/weight properties. Wrought magnesium alloys produced via processes such as forging typically have better mechanical properties than castings; however there is relatively little scientific knowledge on the best way to forge different magnesium alloys and knowledge about the effects of forging on microstructure and final mechanical properties is lacking. The talk presents a collaborative research program in Canada with Ford, Multimatic and a national government lab CANMETMaterials to investigate the design and forging of a full size control arm forged from a variety of magnesium alloys including, AZ31, AZ80 and ZK60.