Ceramic insulators will be used in the ITER Heating and Current Drive (H&CD) systems as opto-electronic vacuum windows (VW) or as feed-throughs. Their performance as materials could come modified by the intake of deuterium-tritium which amounts might be enhanced by ionising radiation effects. Such VW have a primary safety role as tritium confinement barriers. Tritium transport analyses have major implications on the design and safety assessments of ITER RF H&CD systems. As it is shown, refined tritium transport release-rate models together with detailed parametric studies can precise such assessments. In addition such modeling serves as conceptual framework to quantify precise impact of underlying phenomena (ex. radiation-enhanced diffusion or potential effects of radiation damage on tritium transport through the VW) and its final impact on main transport parameters of interest for VW design: permeation flux and D,T inventories. In the present work it has been shown how, for electric implantation of ionized D,T in the VW being the major source for isotopes intake, an hybrid recombination/radiation enhanced diffusion regime determine H-isotopes transport kinetics in the window. Precise values for permeation fluxes and inventories are provided from solution of mass transport equations.