



Tutorial #4

Plasmas roadmapping: looking forward and looking back

M. Turner

Dublin City Univ., (IE)

Roadmapping has become an influential activity in the low-temperature plasma physics community, as the extraordinary impact of the general roadmaps published in 2012 and 2017 shows. Several other more specialized roadmaps also appeared in this period. Roadmapping was not invented in 2012 however. One can trace a number of earlier efforts with similar ideas, even if the term "road map" was not always used, but there is no doubt that the importance of roadmapping has increased in recent decades. Why is this? Probably not everyone will agree on the answer to this question, but an apparently important factor is that the field of low-temperature plasma physics and applications has become much more complicated in recent years. For much of the twentieth century, the field was dominated by a few applications (lamps, gas lasers, materials processing) and the research agenda was comparatively easy to see: The important questions were readily apparent. Recently, however, there has not been any single area of application dominating the research agenda, and the key questions are not so easy to identify. The low-temperature plasma physics community aims to develop plasma applications with socio-economic benefits, and it must do with this with limited resources. Roadmapping helps the community to focus its efforts on the most important questions, and hence to bring forward these benefits in the most efficient and timely manner. This talk will review the influence of earlier efforts that we might now classify as roadmapping, and also take an overview of the status of roadmapping in the field today.