

Questions & Answers

about trends in Road Construction

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In which way do you see trends leading the asphalt (Road) construction industry in the short term?

The focus is increasingly on warm and cold asphalt technology for new pavements and well as in-place recycling of existing pavements. This is driven primarily by increased cost of energy and the need for reducing CO2 emissions. There is also an ever increased pressure to recycle not just old pavements but other materials such as truck tyre rubber into asphalt pavements. There also appears to be an emerging reduction in the supply of bitumen that is driven by the oil companies developing

increasingly innovative technologies to get higher value products out of each barrel of oil. The reduced supply of bitumen has also led to more variability of bitumen sources than previously, causing problems for agencies and contractors alike. Public agencies are also gradually moving toward performance-based specifications, percent within limit specifications, and warranty projects. This means that new compaction technologies, sometimes referred to as “intelligent compaction” will be increasingly more important in providing a more homogeneous final compacted pavement layers. Finally, there is a strong trend toward the use of polymer modification to increase the life of pavements.

Would this have any impact in the way road construction equipment is designed or used? (in which way?)

The focus on cold and warm in-place pavement recycling technologies has already led to new innovations in paving equipment where steam is introduced into the bitumen in order to cause the bitumen to foam. There are also a number of emerging technologies that allow for the manipulation of binder viscosity and thus lower mixing and paving temperatures through chemical modification. Similarly, the focus on performance-related specifications, percent within limit specifications, and warranty projects is leading to an overall increased pressure to increase the quality of paving jobs. Segregation is now being recognized as a problem that can be fixed through good paving and compaction practices. There are likely going to be new types of compactors shortly that further minimize segregation problems and promote homogeneity of air void distributions within the compacted layer. Finally, we will see much wider use and further development of compactors with some kind of “intelligent compaction” technologies that allow for a reduction in the variability of the compacted pavement and thus increased pavement life.

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