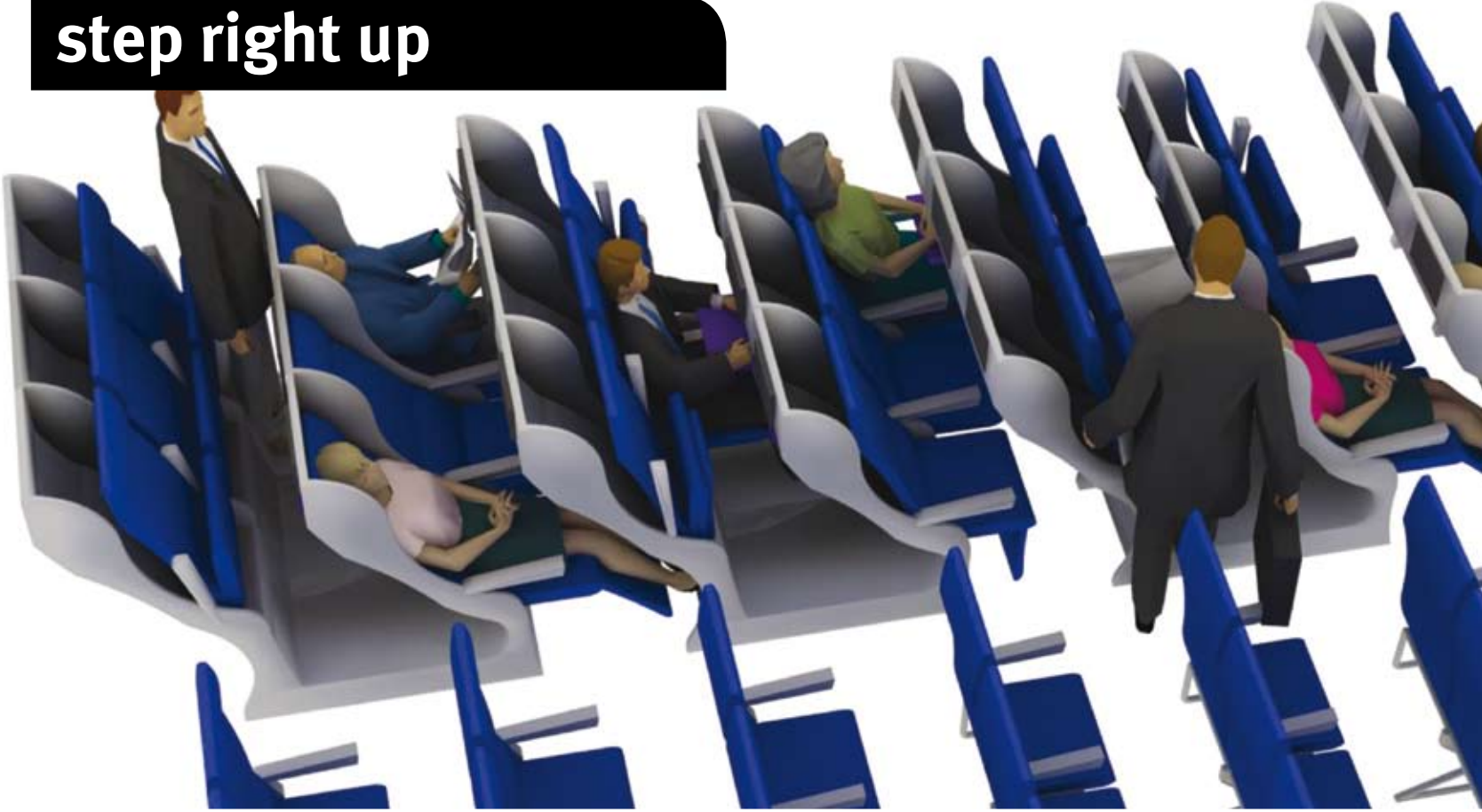


# step right up



**BRIEF:** Boston-based Jacob Innovations works with airlines and manufacturers on the design of concepts that capture the optimal usage of vertical space. The 'Economy Comfort' concept shown here has been developed to provide "cost-effective reclining accommodations that capture the value of unused vertical space".

**DESCRIPTION:** Every alternate seat is elevated by no more than the height of a conventional step, providing a significant improvement to economy class (due to an increase in the angle of recline available to passengers) without affecting passenger density. "The passenger experience is superior to economy, in that it allows reclining at about 45°," says company founder, Emil Jacob. "Together with the added foot rest it makes sleep much more possible than in conventional economy. This concept would bring increased revenue as airlines can charge a premium for added comfort without requiring additional space. The airline could continue with the exact same number of economy seats and loading times would be about the same." The seat shell would also allow passengers to recline without encroaching on passengers behind; and the seat pan can be folded vertically to allow easy access. Installation would be no different than a regular economy seat – no new tracks are required – both the seat and the platform can use existing tracks.

**VERDICT:** Any concept that can improve comfort in economy without eating into airline profits should be explored fully. But what about the added weight of the step? "The higher level seat will be a little heavier – while it is generally the same as a conventional seat, it is 'stretched' vertically about 7in," says Jacob. "However this weight penalty is easily compensated by the premium an airline can charge. The platform is a light structure, which for certification purposes does not need to withstand the same pressure as the seat itself."



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