

# the *economics*

of Modeling and Simulation

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Ladies and Gentlemen, on behalf of The Society and the Editorial staff, I want to welcome you to a new editorial feature of Modeling and Simulation Magazine. This column is one of several new editorial venues addressing topics of urgent and significant concern for the entire modeling and simulation community. We are anxious to provide a mechanism for the prompt and effective exchange of ideas, and for the identification of topical issues which deserve continued, comprehensive, and systematic consideration.

The topical scope of this column is, as its title suggests, "the economics of modeling and simulation." Taken liberally (after all "economics" is frequently defined

tion and technical capability. The application of M&S to a wide variety of technical and management enterprise is generally conceded. And, the degree to which M&S has found a central place in many application domains confirms its efficacy in "doing real work" in academic, government and industrial sectors (that's the good news!). On the other hand, there is no generally accepted definition of the core competencies of the simulation professional, no clearly defined set of universally appreciated products and services which constitute the media of exchange in the M&S market, no strategic guidance for establishing the return on investment in M&S, and no fully established consensus about the scope

and unity of the "simulation industry," compared to the application domains wherein M&S utility normally meets the road.

Given the evolution of M&S (not entirely dissimilar from the development of the electrical, electronics, computers and software professions and industries of the last century) this lack of identity, unity, and cohesion of the M&S profession, industry and marketplace is hardly a surprise. Given the significant trends in the use of M&S to support system development, control, and operations, however, the maturation of the M&S industry shows the same kind of historical inevitability which can be seen (in retrospect) in the other technological sectors cited.

This column will address observations, issues, concerns, opportunities, and ACTION related to the economic facet of the evolution of the comprehensive modeling and simulation profession, industry, and marketplace!

I invite you to correspond with us to register your interests, and to stimulate the debate by nominating topics, contributing analyses, and particularly in helping to tease out what there is to be known about the fundamental economics of modeling and simulation. Wherever you work, whatever you do, and whatever perspective you may have on modeling and simulation, join us to educate what there is to know about economics and simulation that will help us mature the profession, the industry and the marketplace for the common good!

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as "the management of scarce resources"), economics of M&S encompasses consideration of the costs and benefits of M&S, the markets wherein buyers and sellers meet to exchange goods and services, and all the mechanisms whereby we make decisions about what to offer, what to purchase, at what price, and in anticipation of what the perceived value is.

The significance of the economics of M&S is most clearly appreciated when we consider the state of evolution of the simulation profession, the industry and the marketplace. M&S is certainly a valuable professional specializa-



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