

Who is the most influential person in the Rapid Product Development and Rapid Manufacturing World today?

During the first half of 2007 the TCT Magazine team has been compiling a list of the 25 most influential people in this industry voted for by the industry itself and the readers of the magazine. Recognising the technical contributions of innovators, visionaries, writers, researchers, consultants, educators and personalities within the RPD&M community we have received more than a thousand votes for in excess of 70 individuals.

It should come as no surprise that the inventors of the RP machines themselves feature heavily — and near the top — in this poll. But there have also been a few surprises along the way

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The Top 25 Most Influential People in RPD&M

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1. Terry Wohlers, Wohlers Associates

Terry Wohlers is President of Wohlers Associates Inc, an independent consulting firm he founded nearly 21 years ago. Through this company, he has provided consulting assistance to more than 140 organisations in 19 countries focusing on new developments and trends in product design, prototyping, tooling and manufacturing. Terry has authored more than 300 books, articles and technical papers on engineering and manufacturing automation and has been given the opportunity to speak to thousands of engineers, scientists and executives around the world. He has given more than 45 keynote presentations on five continents in cities ranging from Frankfurt and Cape Town to Beijing and Tokyo. Terry will be presenting at the TCT 2007 Rapid Manufacturing Conference: 26 –27th September.

sampling and processing (DSSP) industry. The company employs leading researchers Dr. Herbert Edelsbrunner and Dr. Tamas Varady, with more than 200 published papers between them, who are actively involved in research and development in this area. The company has also received millions of dollars in funding from the National Science Foundation and the National Institute of Standards and Technology to further develop key DSSP technologies and apply them to industry.

Anton Gerrits, Department of RM, TNO

Anton H.J. Gerrits is a professional senior project manager with 14 years of multidisciplinary experience in the industry and since 1998 has worked in RTD (technical project development). Mr Gerrits has worked with diverse national and international companies active in the fields of product & production development, in the positions of engineering constructor, product developer, project leader, R&D- and sales manager. He has great experience of managing technical & multidisciplinary national and international projects. He has experience with fundamental & applied research projects in the areas of Rapid Prototyping, Rapid Tooling and Rapid Manufacturing. His largest project

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2. Professor Phill Dickens, Loughborough University, RMRG

Phill Dickens is Professor of Manufacturing Technology at Loughborough University. From 1983 to 1988 he was a Lecturer in the Department of Production Engineering & Production Management at the University of Nottingham. From 1988 to 1990 he was Director of Design and Manufacturing at New Dawn Engineering Ltd. He rejoined the University of Nottingham in 1990 where he worked as a Reader until 1997. In 1998 he joined De Montfort University as Professor of Manufacturing Technology until October 2001 when he joined Loughborough University. Professor Dickens is globally recognised in the area of Rapid Prototyping and Manufacturing and has produced 50 journal papers and 130 other papers on the subject. He has been a keynote speaker at several conferences. He was awarded the Donald Julius Groen Prize in 2003. In 2005 he co-edited the first book on Rapid Manufacturing.

Marshall Burns, Ennex Corporation

Dr. Marshall Burns operates Ennex Corporation, founded by him in 1982, which develops technology for digital manufacturing, particularly focused on fabbers (digital fabricators). He is the author of a major book on the subject, *Automated Fabrication*, first published by Prentice Hall, and has lectured about it on four continents around the world. He has also appeared on several radio and television programmes, explaining fabbers in nontechnical terms.

Jeffrey E. DeGrange, The Boeing Company (USA)

Jeff DeGrange is a senior manager who leads a corporate technology synergy and global collaboration team in The Boeing Company. Jeff's responsibilities are for the technology selection, application development, maturation and transition of direct digital manufacturing technologies, scanning metrologies and reverse engineering processes. At the Boeing Company these direct digital technologies are known as Accelerated Digital Design and Manufacturing (ADDM) since the technology compresses schedules and lowers costs for engineering and manufacturing activity associated with prototype, production and post-production programs. In 2003, Jeff received the Boeing's corporate Special Invention Award for the Direct Manufacturing of Aerospace Parts.

Ping Fu, Geomagic

Ping Fu is President and CEO of Geomagic. She co-founded Geomagic and has led its growth from a start-up company to become a worldwide leader in the digital shape

is FP6 Integrated Project Custom-Fit, which he initiated together with Loughborough University and in which he is the scientific coordinator (16M budget, 32 partners, 12 countries).

Timothy J. Gornet,
University of Louisville

Tim Gornet is an expert in the fields of general Engineering and Rapid Prototyping. He is the manager of Rapid Prototyping Center Operations at the University of Louisville, Ky. Prior to joining the University of Louisville, he was employed at General Electric in the Plastics Applications Center as a computer-aided engineering and manufacturing specialist. At GE he was responsible for the purchase, installation and operation of a stereolithography system. He founded the Selective Laser Sintering User's Group and served as president for three years. Tim is also a member of SME's Rapid Technology & Additive Manufacturing community. He has been active in the rapid field since 1988.

Todd Grimm,

T. A. Grimm & Associates, Inc.

Todd is the founder and president of T. A. Grimm & Associates, Inc. and is its principal marketing specialist and technology consultant. His experience includes 17 years in the product development industry. In that time, he has held positions in sales, sales management, business management and marketing. Prior to starting the company, he was the marketing manager for what became one of the leading rapid prototyping service bureaux. Todd has served as an industry advisor for several associations. For the past five years he has been an advisor for RP&M, a trade show and conference sponsored by the Society of Manufacturing Engineers (SME). He currently serves as Chairman of the 3D Data Capture/Reverse Engineering tech group and has also been a member of the SME Rapid Prototyping Association's Peer Review Council.

Professor Richard Hague,
Loughborough University

Professor Richard Hague is a Fellow of the IMechE, Head of the world-leading Rapid Manufacturing Research Group and a Professor at Loughborough University. He has worked within Rapid Prototyping (RP) & Rapid Manufacturing (RM) research since 1993, when he joined the RP Group at Nottingham University. Richard has multiple academic journal & international conference publications in the area of Rapid Manufacturing and is referee to several key international academic journals & conferences; he also organised & Chaired the 1st International Conference on RM.

Neil Hopkinson,
Loughborough University

Neil Hopkinson is a lecturer in the Wolfson School of Mechanical and Manufacturing Engineering at Loughborough University with

over 10 years experience in "Rapid" technologies. He is the lead editor of the world's first book dedicated entirely to Rapid Manufacturing and his research activities focus on polymer processes and materials.

Paul F. Jacobs,
Laser Fare Inc.

Paul Jacobs served as Principal Scientist with Xerox Electro-Optical Systems from 1965 to 1980, when he was promoted to Chief Scientist. In 1989, Paul joined 3D Systems as Director of R&D. He developed much of the theoretical foundation of stereolithography, led the R&D team that improved SL part accuracy, and also helped develop the QuickCast build style for investment casting patterns. In 1992 he authored, "Rapid Prototyping and Manufacturing: Fundamentals of Stereolithography", published jointly by SME and McGraw-Hill. In 1996, he authored; "Stereolithography and Other RP&M Technologies" published by SME and ASME. In 1997, Paul joined Laser Fare Inc., in Smithfield, RI as Vice President of R&D. Currently he is the Principal Investigator on a USAF Phase II SBIR program for high speed, low cost, precision laser trepanning. Paul also serves as a part time employee of Express Pattern, specialising in investment casting applications of RP.

Volker Junior,

Prior 2 Lever/ Junior & Tacke

Volker Junior is a director of Prior 2 Lever Ltd and a partner of Junior & Tacke. As a consultant for technology integration he specialises in layer manufacturing and mass customisation strategies. Volker Junior has been one of the most active players on the German mass customisation scene in recent years. His special field of expertise is rapid manufacturing. As a former marketing director of EOS he was preparing the market for these technologies.

Gideon Levy,

University of Applied Sciences St. Gallen
Prof. Dr. Gideon N. Levy is currently Head of The Institute for Rapid Product Development (RPD), University of Applied Sciences St. Gallen (FHS), Switzerland. Prof. Dr. Levy's career has been mainly in advanced R&D in the Mechanical/Electronic world with leading Swiss machinery industrial companies. Specialising in Manufacturing Technologies, Technology Management, Market - Product strategies, key customers, industrial, scientific, technical and practical aspects of product design and manufacture, market launch and technology transfer. A wide range of academic activities have also been maintained.

Bill O'Neill,
Cambridge University Institute for Manufacturing

Dr O'Neill is the Head of the Centre of

Industrial Photonics, which is part of the Cambridge University Institute for Manufacturing. He has written extensively on the subject of laser-matter interactions, optical engineering and rapid manufacturing process technologies. Dr O'Neill is a member of a number of government and industrial advisory boards, a member of EPSRC Peer Review College, and is a non-executive director of Advanced Laser Solutions Ltd. More recently Dr O'Neill was elected as a Director of the Laser Institute of America (LIA) to help steer and develop worldwide operations in this field.

Tim Plunkett,
Plunkett Associates Limited

Tim has been at the forefront of the RP industry since the early 1990's when he founded Formation. Pioneering the use of stereolithography in the UK he went on to raise the profile of rapid tooling before creating 3T RPD, the UK's largest sintering operation. He now provides a consultancy service to those interested in all aspects of the RP industry.

Don Reinertson,
Reinertsen & Associates

Don is President of Reinertsen & Associates, specialising in the management of the product development process. Before forming his own company, he consulted at McKinsey & Co., an international management consulting firm, and was Senior Vice President of Operations for a private diversified manufacturing company. His

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3. Scott Crump,
Stratsys Inc

In 1989, Scott Crump patented Fused Deposition Modelling and was a co-founder of Stratsys Inc. with his wife Lisa Crump. He has been the company's CEO and President since its inception and serves on the board of directors. Scott Crump also runs RedEye RPM and Dimension 3D Printing, business units of Stratsys Inc. Mr. Crump is a registered professional engineer and received a BS degree in Mechanical Engineering from Washington State University in 1976 and a business degree from the Anderson School of Business Management at UCLA.

book, 'Managing the Design Factory', is recognised as a powerful and thoughtful application of manufacturing thinking to product development. Don is also co-author of, 'Developing Products in Half the Time' which is a universally acknowledged 'must have' text for product leaders.

**Mike Shellabear,
EOS GmbH**

Mike Shellabear graduated in mechanical engineering at Loughborough University of Technology, England, where he also gained his Ph.D in vibration analysis using laser interferometry. In 1991 he joined EOS, Germany, as Engineering Manager for 3D Optical Metrology, later taking over responsibility as Market Development Manager and then Assistant to the Management Board. Following that, he was appointed Product Manager for the Direct Metal Laser Sintering (DMLS) technology and became its Vice President in 2006. He has more than 15 years

of experience in the Rapid Prototyping & Manufacturing industry.

**Preston Smith,
New Product Dynamics**

Preston Smith, founder and principal of New Product Dynamics, began specialising in rapid product development in 1984 as an internal consultant, became an independent management consultant concentrating on time-to-market issues in 1986, and earned Certified Management Consultant (CMC) standing in 1990. Preston has consulted on highly effective new product development techniques and time to market over a wide variety of industries in many countries. He is known for adapting techniques that have proved valuable in one industry to another industry. Although Preston may be best known for his many publications, his daily activity centres on onsite consultation and training in new product development using a results-oriented approach that he has honed over the years.

**Thomas Sorovetz,
DaimlerChrysler**

Thomas A. Sorovetz is the Supervisor of Rapid Prototyping Development, Wood, Plastic and CNC Shops for DaimlerChrysler. Tom has more than 22 years in the automotive industry with the last 17 years being in RP. He was an Advisor for the Rapid Prototyping Association of the Society of Manufacturing Engineers (SME), and helped develop and instruct the Rapid Prototyping First Look and the Rapid Prototyping Fundamentals courses for the SME. Thomas has also been an advisor for the SME RP&M Conference as well as for the SME Bright Minds Program. Thomas has written many articles and has given many presentations on Rapid Prototyping and holds the Master Level certificate for RP.

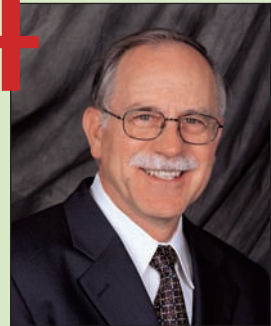
**Graham Tromans,
Rapid Manufacturing Consortium**

Graham Tromans is currently Manager of the Rapid Manufacturing Consortium, which is part of the Rapid Manufacturing Research Group at Loughborough University. His role is to form the link between research and industry, disseminating and developing research results into industrial applications. He has been involved in RP/RM since 1990. Until the end of 2002 Graham managed the RP&T facility at Rover Group/Land Rover. He has been on Overseas Science and Technology Missions for the UK governments, Department of Trade and Industry to both USA and Japan, looking at the developments in RP/RM technology and applications. He is currently Chairman of the RPMA in the UK.

**Wilfried Vancaen,
Materialise**

Fried Vancaen is a co-founder of Materialise, which he set up in 1990 in a joint venture

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**4. Charles (Chuck) W. Hull,
3D Systems**

Charles W. Hull, is Executive Vice President and Chief Technology Officer at 3D Systems. Mr. Hull was a founder of the company after patenting stereolithography technology and has served in various executive positions since 1986, including Chief Executive Officer, President, Chief Operating Officer and Vice Chairman. Prior to 3D Systems (1980-1986) Chuck was Vice President of UVP Inc — a systems manufacturing company. Mr. Hull retired briefly from 3D Systems during 1999, at which time he served as Vice Chairman and a member of the Board of Directors as well as a Consultant. In 2006, 20 years after the first commercial machine, Loughborough University awarded Mr Hull with an Honorary Ph.D for his pioneering engineering research, in particular with the development of the Stereolithography process.

with the University of Leuven. Materialise was established as the first RP Service Bureau in the Benelux countries. Immediately after its start up, the company concentrated on researching and developing solutions for the data transfer to Rapid Prototyping machines. This resulted in the commercialisation of the products Magics and Mimics. He is also a founding member of the RP4Baghdad project, which, "displays not only the powerful impact of additive fabrication in the field of medicine, but more importantly, an inspiring level of human concern and compassion across our industry."

**Prof David Ian Wimpenny,
De Montfort University**

Professor David Ian Wimpenny is the Director of the Rapid Prototyping & Manufacturing Group: responsible for funding, budgetary management, personnel issues, research facilities and equipment, health & safety, securing ethical approval, research quality and publications. Prof Wimpenny has been a Committee member of the Rapid Prototyping & Manufacturing Association (RPMA) for over 10 years. The RPMA is affiliated to the IMechE and is the UK's only Rapid Prototyping association and is a founding member of the international GARPA (Global Alliance of Rapid Prototyping Associations) body. He is also the Principle Investigator for a portfolio of EPSRC/EU funded research programmes.

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**5. Hans Langer,
EOS Electro Optical Systems**

Dr. Hans J. Langer, founder and CEO of EOS, was born in 1952 in Krumbach, Germany. He received his PhD in 1980 from the LMU university in Munich. His thesis was on the development of a frequency tunable vacuum UV laser. From 1981 to 1984 he worked in sales and marketing for start-up company Carl Baasel Lasertechnik, which subsequently became a global leading supplier of laser marking systems. From 1985 to 1988 he held the position of Managing Director of General Scanning GmbH, the European subsidiary of General Scanning Inc, a global leader of laser deflecting systems. In 1989 he founded EOS Electro Optical Systems. His business idea was that the generation of three-dimensional parts directly from CAD data with the help of laser technology could be commercially used. Today, 18 years after the foundation, more than 220 employees at EOS achieve an annual turnover of more than 52 million Euros.