

SUMMARY:

- Restricted to US laser industry - key current and future application areas will be identified
- Study will not include diode, or diode laser markets
- Purpose: asses current and future size and scope of US laser industry, trends, strengths and weaknesses, examine emerging technologies, make recommendations in respects to government, academia and industrial investment in technologies.
- Approach: comprehensive electronic survey, corporate participants will be asked to complete survey, participants will have access to study results
- Co-chairs will seek opinions of well-known experts from laser industry, government and academic institutions to formulate accurate view.
- Group Comments:
 - o No formal process for joining the groups - structure of each group is up to the leaders and they will share "best practices" . Contact Paul Ballentine or the group leaders directly and will be forwarded to the appropriate individuals.
 - o More details about the focus of lasers are not specified at this point. Laser team should indicate more specific information about which lasers they will focus on. For surveys that teams will be distributing to corporations and institutions, there needs to be quality ensurance of the surveys to ensure they are not biased.

AMTech Roadmap of the Laser Industry

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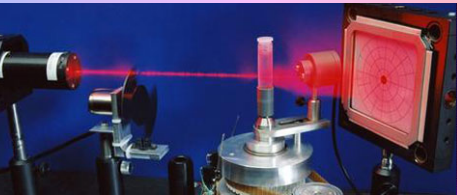
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AMTech Roadmap of the Laser Industry

Presenter

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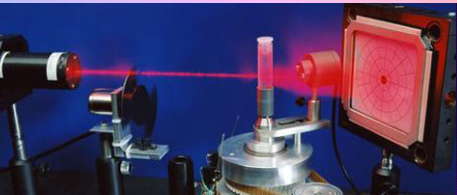
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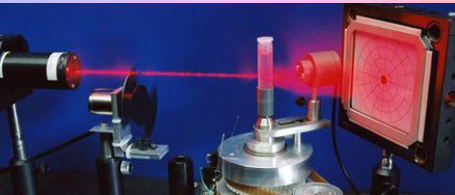
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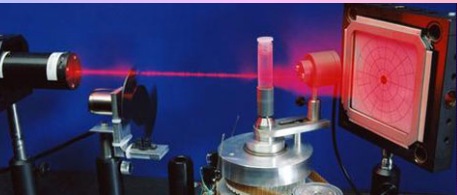
Scope

- 1) Restricted to US laser industry.
- 2) Scope and size of foreign laser industry assessed only to compare its overall competitive position.
- 3) Key current and future application areas will be identified, however, their scope and size will not be the subject of this study.
- 4) Judicious assessment of trends in primary areas will be studied to determine their possible impact on future laser markets.
- 5) The study will not include the diode, or diode laser markets. The majority of this market is in the lighting and display industry, considered to be outside the scope of this study. The size and scope of the pump-diode industry for high power lasers will be assessed separately.



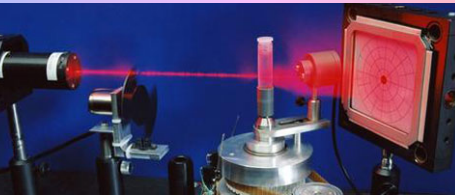
Purpose

- 1) Assess the current and future size and scope of the US laser industry.
- 2) Identify past, current, and future trends in the laser market
- 3) Identify strengths and weaknesses in the US laser market relative to foreign competition.
- 4) Examine technologies on the horizon that could be transformative to the US laser industry.
- 5) Make recommendations with respect to government, academia and industrial investment in technologies that will strengthen the US laser market.



Participants

- Involvement of many representatives of laser companies will be recruited in three categories:
 - (a) major corporations;
 - (b) small and medium enterprises (so-called SME's); and
 - (c) start-up companies, (entrepreneurial enterprises – “EE's”)
- SME's are defined as small businesses (< 500 employees).
- EE's are defined as < 10 employees and a gross market of < \$1M/yr.
- Participants will be listed the study report in accordance to their wishes.

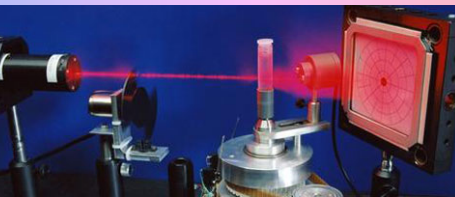


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Approach

- 1) The Co-Chairs of the study (M. Richardson and J. Marciante) will construct a carefully worded and comprehensive electronic survey.
- 2) All corporate participants will be asked to complete this electronic survey with respect to their own company.
- 3) All responses to this poll will be collated without revealing the identity of the respondents. We will only know whether a particular participant has responded - only one response will be permitted.
- 4) The responses to this poll will be synthesized by the investigators.
- 5) Participants in the study will have access to the study results.



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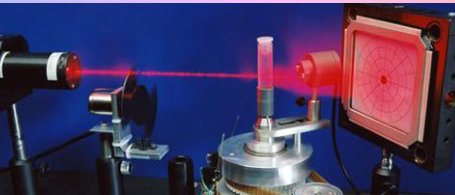
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Additional components

The Co-Chairs will seek the opinions of well-known experts from the laser industry, government and academic institutions, both domestic and foreign, in order to formulate an accurate view of current and future trends, potential roadblocks to further progress and the like.

The Co-Chairs will provide their own synthesized assessment of the data from the survey, together with the input from well-known experts, in a sectionalized report covering all the principal components of the US laser industry (within the scope of the study as described).



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