

SUMMARY:

- Looking for more team members
- Big tendency towards multi-wavelength systems - multi bands of systems - large challenge in terms of materials and coatings, challenging design problem
- Importance on energy and the environment
- Materials - chalcogenides ,Big push on materials that go further then glass, garniet, high powered lasers
- Metrology - thermal properties, how the systems work at different temperatures
- Packaging - make cheaper
- Free form optics - conformal optic
- UR TEAM program - masters degrees for students in undergrads in sciences that go into commercialization of technologies - market assessments - access to Frost and Sullivan

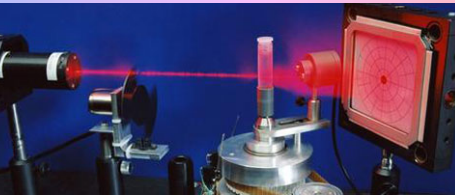
Advanced Optics

Co-leaders

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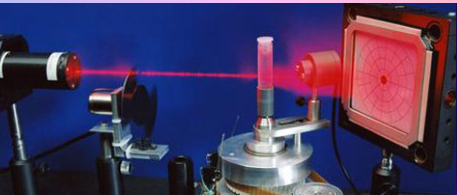


NTRP
National Technology Roadmap for Photonics

NIST
National Institute of
Standards and Technology
U.S. Department of Commerce

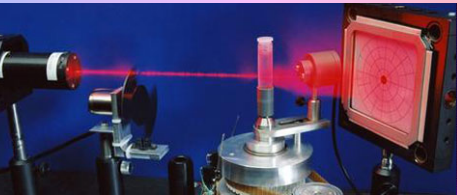
Process

- First steps taken – draft of market sectors in development
 - Connecting constituents to market
 - Identify Market Sectors
 - Draft List -- complete
 - Vet with industry organizations like SPIE and OSA – in process
 - Circulate to memberships for input via survey – in process
 - » Use this step to build awareness of the road mapping and collect ideas for team members
 - » Complete team development simultaneously
 - Identify technology leaders in market sectors
 - » Garner support for roadmap with leadership and identify point persons for spec matrices
 - Support Market Sectors with subsectors that allow our constituents to identify themselves in the supply chain – In process
 - Example:
 - » Level 1 – Transportation
 - » Level 2 -- Automotive (Others are Aerospace, Freight, Shipping)
 - » Level 3 – Vision, Guidance, Sensors
 - » Company recognizes: “I coat mirrors for heads up displays in automobiles”
 - Identify industry reports for market sectors and sub sectors – in process
 - Provide abridged info in lieu of formal Market Working Groups if necessary
 - Provide convenient access to resources for constituents who participate



Initial thoughts on scope

- OSA: hot topic areas such as photonics for brain mapping, molecular imaging, high-power lasers, nanophotonics, optofluidics, nonlinear optics, quantum optics



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Potential challenges or special circumstances for this TWG

- No USA road mapping infrastructure for Optics
 - Can piggyback off of iNEMI work
 - Some relevance in existing road mapping
 - Lack of existing networks at the right level
 - Support from Industry Associations in Market Sectors will be helpful
 - Government entities with interests in Market Sectors have influence
 - Senior leadership in Academia can leverage connections
 - Largest companies in the Optics industry can leverage connections
- Deep position of optics in supply chain makes it challenging for optics companies to be helpful in identifying the key people in product design who shape the market needs
 - This is the reason that this project is so critical to the Optics industry
 - Lack of big picture vision
 - Reward will be tremendous

