FINDINGS OF ONLINE STAKEHOLDER CONSULTATION ON DUAL-USE POTENTIAL

STUDY ON DUAL USE MATERIALS – ADDRESSING DUAL-USE ISSUES IN ENABLING TECHNOLOGIES RESEARCH

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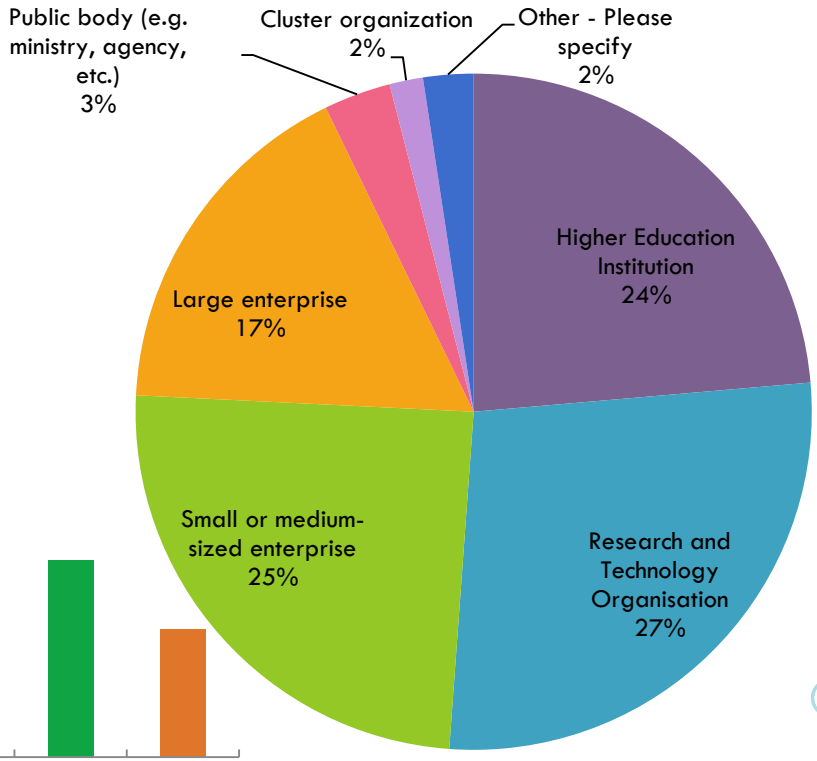
This activity is being undertaken for the Study on Dual Use Materials – Addressing dual-use issues in enabling technologies research for Directorate D - Industrial Technologies - of DG Research and Innovation under the DG Grow Framework Contract No 575/PP/2016/FC. The European Defence Agency participates in the Steering Committee of this study.

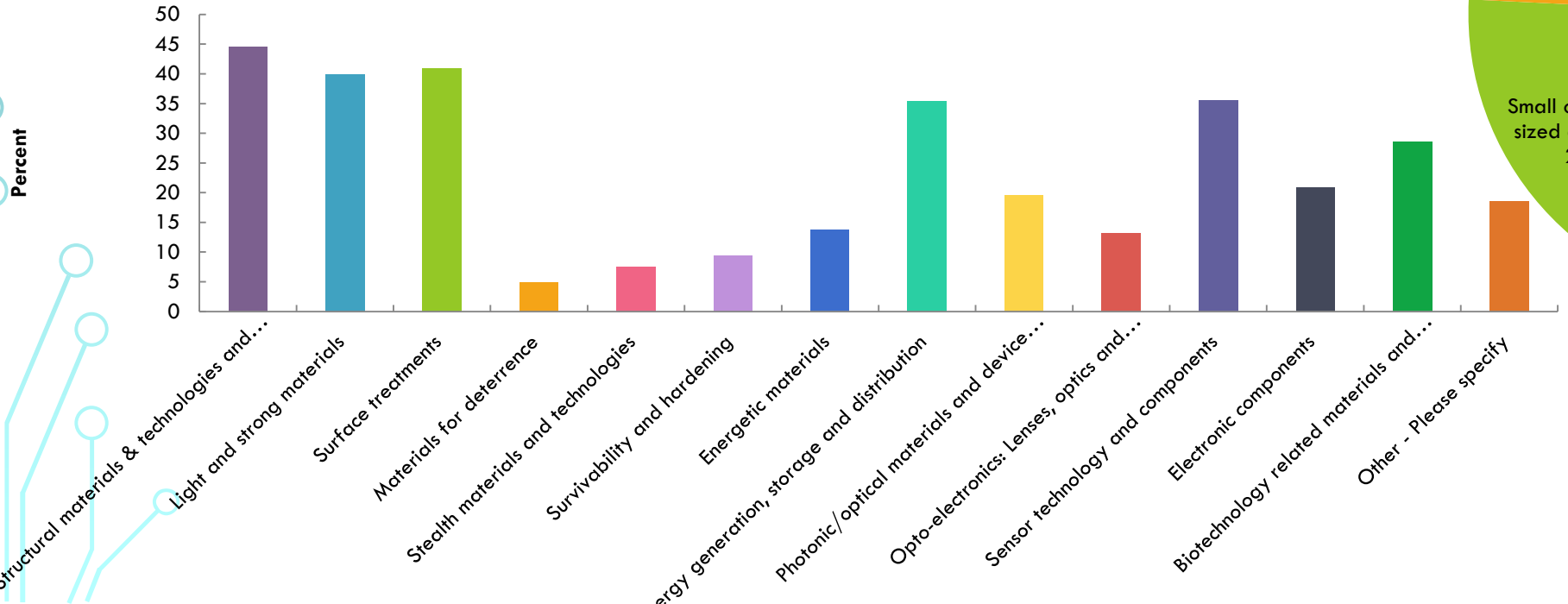
THE ONLINE STAKEHOLDER CONSULTATION

- Aims:
  - Assessing dual-use potential of EU-funded materials research and innovation
  - Highlight drivers and barriers for realizing dual-use potential
- Target groups:
  - H2020 beneficiaries in materials research programme and calls with high relevance for materials research
  - EDA CapTech Materials and Structures experts and funded projects
  - Regional organizations and clusters represented in the European Network of Defence-related Regions (ENDR)
- Conducted May-August 2019
- Over 770 total responses – 501 after data cleaning

OVERVIEW OF RESPONDENTS

- Research and technology organizations most strongly represented, followed by HEIs, SMEs, and large enterprises
- Most frequently active in following technology areas:
  - Structural materials & technologies
  - Surface treatments
  - Light and strong materials
  - Sensor technology and components
  - Energy generation, storage and distribution





HIGH POTENTIAL OF DUAL-USE

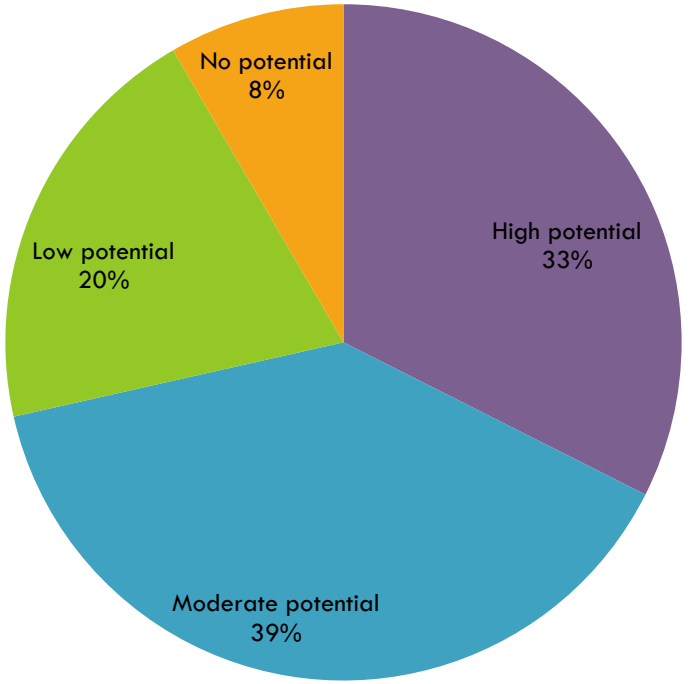
- Respondents split between having significant experience and interest in dual-use (~50%) and not yet aware of potential/no interest (~50%)
  - Of those who are experienced: 25% have a lot of experience (10+ years), 15% considerable (5-10 years), 20% significant (2-5 years), 40% have some experience (<2 years)
  - 40% have not yet though of the possibility of dual-use
- 78% rate the importance of dual-use in materials R&I as moderate to high
- 82% believe that there is high (46%) to moderate (35%) potential to increase synergies for dual-use purposes in their area of research and innovation
- Potential impact of increased dual-use applications of R&I results particularly high on:
  - Extension of R&I to new areas
  - Competitiveness of European industry
  - Increased funding for materials research and innovation
  - Increased secrecy and efforts to protect research results via IPR

DRIVERS AND BARRIERS TO DUAL-USE

- Most important factors enhancing interest in dual-use ('drivers') are:
  - Dual-use enables access to new market segments
  - Dual-use enables access to new customers
  - Responding to increasing demand through dual-use
  - Our research/technologies demonstrate high potential for dual-use
  - Increasing momentum of European and national R&I funding for dual-use purposes
- Most important factors hindering engagement in dual-use ('barriers') are:
  - Lack of awareness for market opportunities in dual-use
  - Secrecy requirements of technologies with dual-use application
  - Concerns regarding exclusiveness of research and technologies with dual-use application
  - Incumbent supply chains in defence area
  - Public procurement requirements

POTENTIAL OF DUAL-USE SPECIFICALLY IN H2020

- 60% of H2020 beneficiaries have not though about potential dual-use applications of their project results
  - Only 17% were aware of their project's dual-use potential and planned such from the beginning
  - Further 17% identified dual-use potential during the project
- Even though the potential is quite high overall - (high 32% and moderate 39%). Potential highest in innovation fields:
  - High performance / low weight design and materials
  - Advanced, smart materials

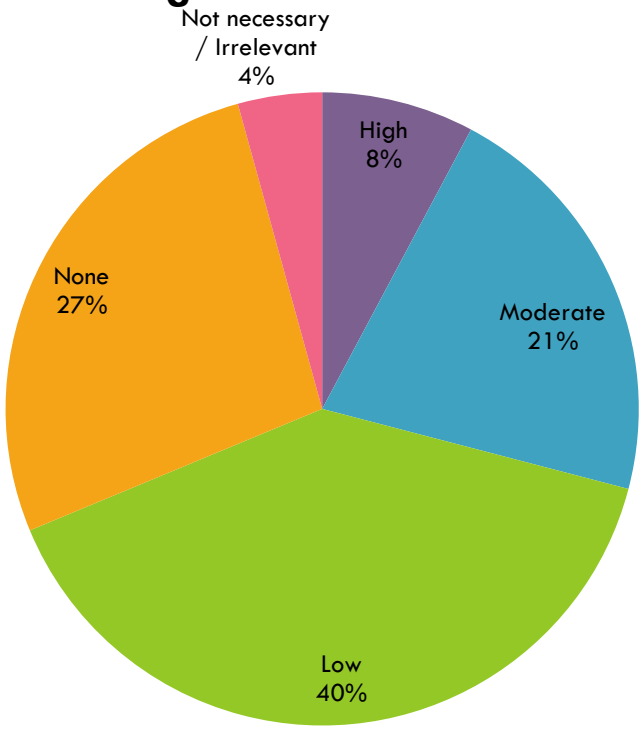


BARRIERS IN H2020

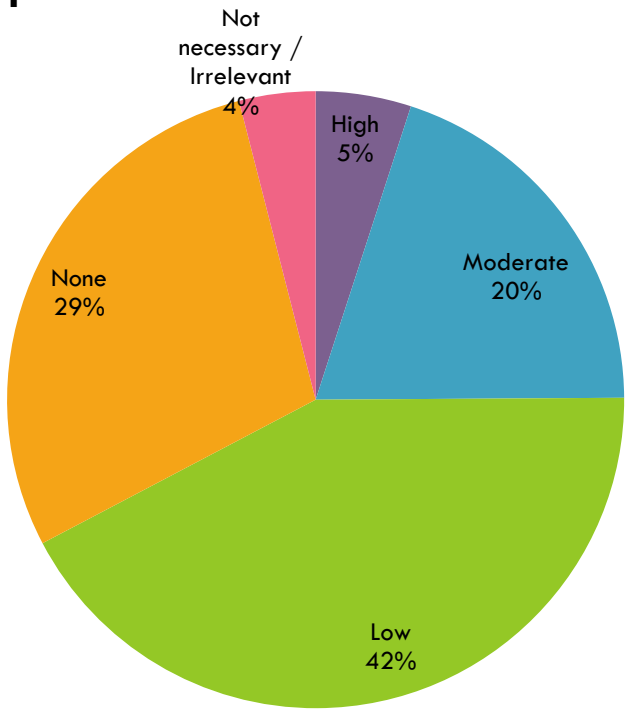
- Only R&I activities focusing on civil applications are eligible for funding in H2020 → Seen as major barrier for utilizing dual-use synergies of results (70% agree completely or partially)
- Other important barriers for dual-use in H2020 include:
  - Limited access to potential users of research results
  - Lack of awareness of dual-use guidelines and regulations
  - Protection of intellectual property
  - Technological specifications of dual-use
  - Lack of inclusion of relevant customers in defence market in project
  - Lack of inclusion of relevant partners in defence research in project

LACK OF KNOWLEDGE OF EU GUIDELINES, REGULATIONS, SUPPORT

Dual-use regulations in EU-funded R&I



Support for dual-use in EU-funded R&I



CONCLUSIONS

- Overall potential for dual-use of research and innovation in materials research is high (both overall and results of H2020 projects specifically)
- A small proportion of R&I actors have interest and considerable experience in dual-use, while the majority have not yet though of the possibility of dual-use (40%) or have only limited experience (20%)
- Most important barrier to dual-use in H2020 is the lack of knowledge of EU guidelines and support & restrictiveness of framework programme in only funding R&I with exclusive civil focus

→ *75%* think that "There is a need to open up the framework programme to strengthen possibilities to engage in dual-use research and innovation"

- Other barriers relate to lack of access to defence industry and defence-specific requirements of technology (e.g. lack of awareness of market opportunities, incumbent supply chains, lack of access to defence customers and cooperation partners, technological specifications, IPR – exclusiveness and secrecy requirements)