The Association of Photonics Industries in Israel



# Photonics Israel Association



## לשכת המהנדסים האדריכלים והאקדמאים Photonics Ecosystem במקצועות הטכנולוגיים במקצועות הטכנולוגיים בישראל

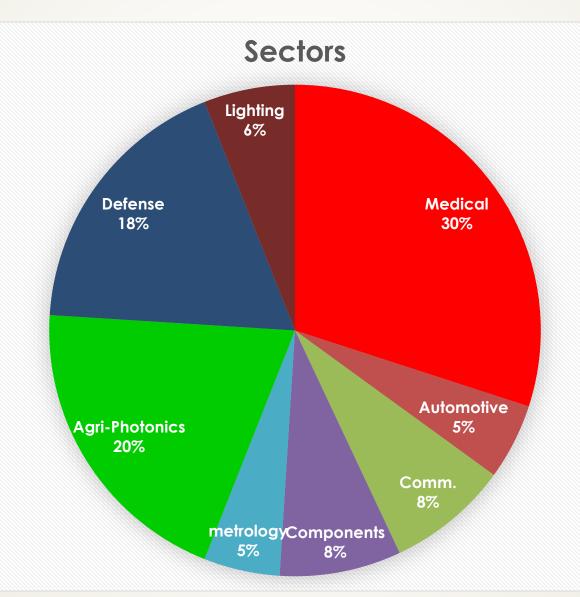


- Strong academic basis more than 500 researches in 7 universities.
- More than 400 Photonics entities.
- ❖ About 80% are startups.
- \* Advanced National Photonics center ICAP (Israel Center for Advanced Photonics).
- Strong infrastructure for research, development, production, assembly & testing.
- ❖ Total industrial revenues above \$6B (90% export).
- More than 20,000 employees (5,000 in R&D). <u>Significant shortage</u> of engineers and technicians.

### Photonics Entities in Israel









# לשכת המהנדסים האדריכלים והאקדמאים Photonics Israel Association במקצועות הטכנולוגיים



- Photonics Israel is the association of the Photonics entities in Israel.
- Our mission: Joining forces of all the members in the photonics ecosystem in Israel, in order to enable a significant growth of the photonics entities, the national economy and promote international cooperation.

➤ We are operating within the AEAI\* — The Association of Engineers, Architects and Graduates in Technological Sciences in Israel.

\*Established in 1909.



# How do we operate



- Enhancing cooperation between all Photonics entities in Israel.
- Establishing communication channels with the international photonics community.
- Promoting the needs of the industry at the national level.
- Intensifying Photonics education and training at all levels.
- Participating in international <u>committees and forums</u>.

# לשכת המהנדסים האקדמאים Photonics Israel Snapshof on last year activities לשכת המהנדסים במקצועות הטכנולוגיים



- ☐ Monthly newsletter.
- ☐ Seminars:
  - German Israeli on Medical Photonics: 01/2020
  - 09/2020 German - Israeli on Agri-Photonics:
  - 10/2020 German - Israeli on Agri-Photonics:
  - German Israeli on Automotive Photonics: 02/2021



# לשכת המהנדסים האדניכלים והאקדמאים -shot on last year activities-Cont האדריכלים והאקדמאים במקצועות הטכנולוגיים במקצועות הטכנולוגיים



- ☐ 40 webinars, address various Photonics topics.
- ☐ Conducting a course for engineers on "Introduction to Photonics systems".
- In our Queue, photonics courses for engineers (as of 2021/2) on:
  - System Engineering.
  - Lasers.
  - Optics.
  - Photonics Sensors.
  - Photonics Instrumentations.

The courses will address the characterization, design considerations, Integration and Testing.

□ Conducting the Photonics Days IL conference on June 7 – 9, 2021. Topics were covered technologies & applications.

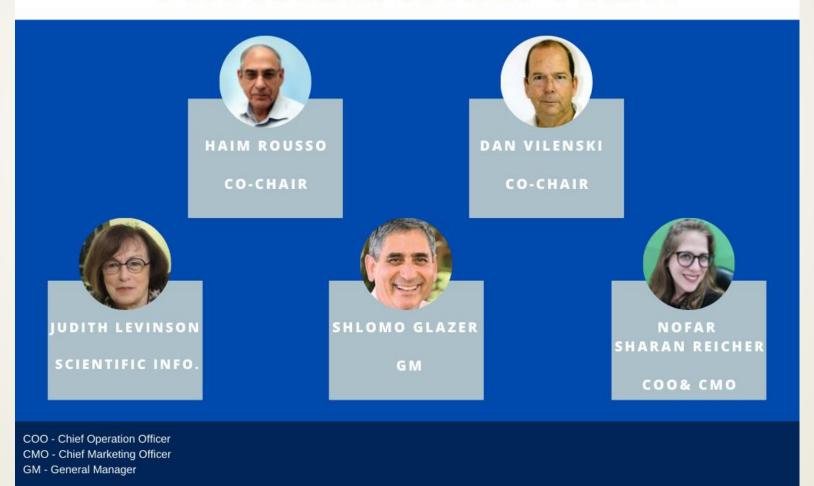
Photonics Israel site: <a href="https://photonics.aeai.org.il">https://photonics.aeai.org.il</a>

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ORGANISATIONAL CHART

### **Photonics Israel Team**







# The **A**ssociation of **E**ngineers, **A**rchitects and Graduates in Technological Sciences in Israel.



A non-for-profit organization

### Goals:

To represent and promote all those involved in technology and to assist in their professional development as innovative entrepreneurs, movers and leaders throughout their professional lives and according to the economy's changing needs.

To promote the entire range of engineering, architectural and technological professions in both academic and industrial fields and wherever they intersect.

To unite all those involved in technological development under one roof, as one, **innovative community** that initiates, cooperates, develops, contributes and grows.

\*Established in 1909.





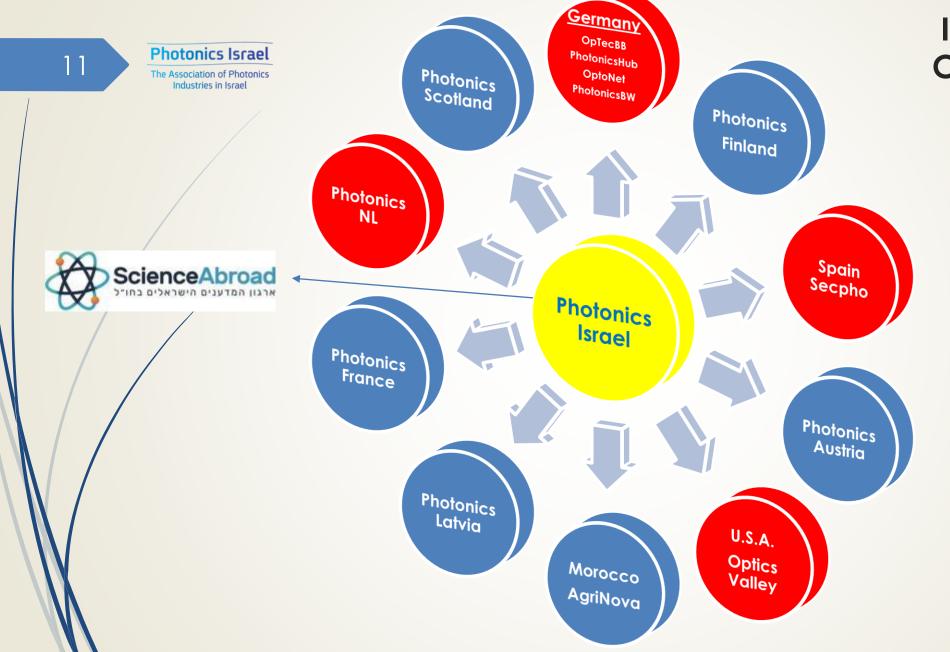


# The **A**ssociation of **E**ngineers, **A**rchitects and Graduates in Technological Sciences in **I**srael.

- ☐ Within AEAI there are several professional Engineering <u>Associations\*</u>
- Each one of them is conducting:
  - Courses.
  - Seminars.
  - Conferences.

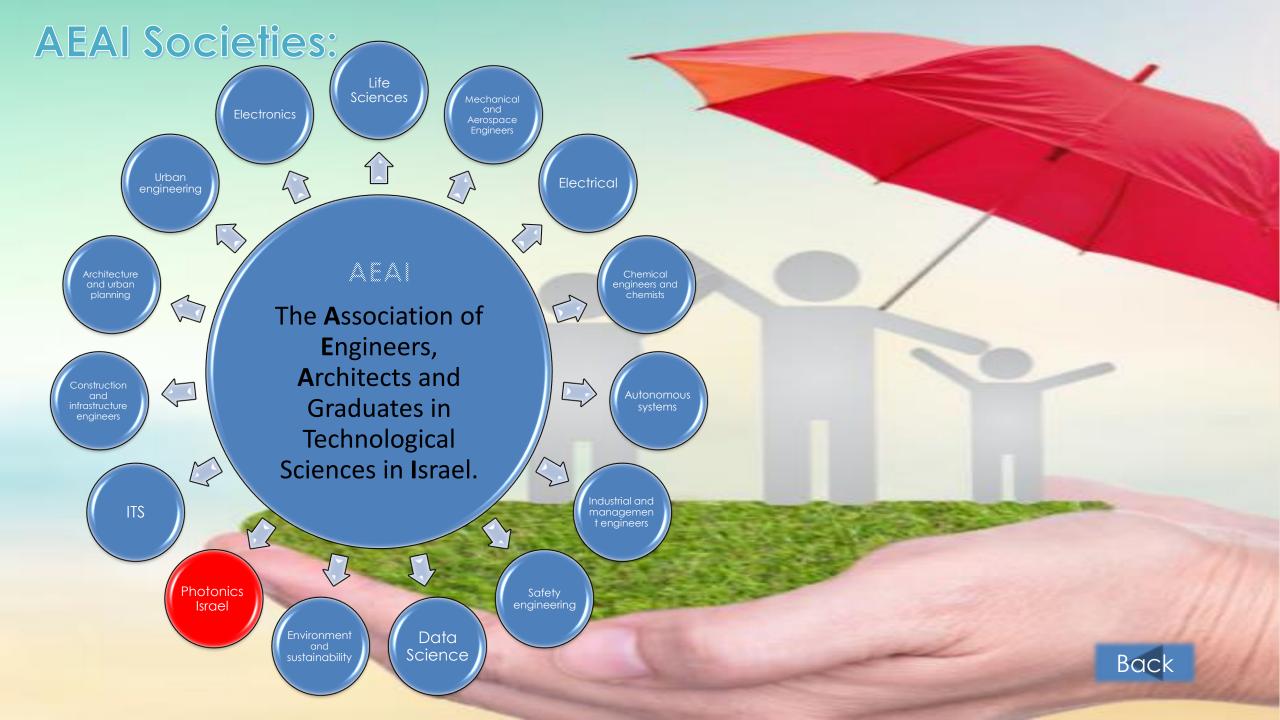
 \*Mechanics, Electronics, Electrical, Data Science, Civil, Architecture, ITS, Chemistry, Autonomous, Photonics, Environmental, Industry, Safety, life science, Urban.

\*Established in 1909.



# International Collaboration







# How do we operate



- ➤ Photonics Israel in a member of the GPA Global photonics Alliance.
  - GPA is an organization that includes representatives from tenths of photonics clusters all over the world.
  - The GPA facilitate a lot the communication between photonics companies in different countries

Mr. Haim Rousso as the Co-Chairman of photonics Israel, is a member at the board of stake holders of Photonics 21

Photonics 21 is the European technology platform for photonics. The platform represents the European photonics community from industry and research organizations and develop the European photonics strategy for future research and innovation in Europe. There are 2,500 members at Photonics 21



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# Employees Annual Needs



Employees:

More than **20,000** 

Annual reduction

1% >> 200

Growth rate

~ 2.5%

Needs:

~ 600

14

Back

Universities: ~100 engineers annually.

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### Instrumentation



Interferometer

**Spectrometer** 

**Power-meters &** 

**Energy meters** 

**Integration** 

**Spectrograph** 

**Polarimeter** 

MTF

**Collimator** 

sphere

Monochromator

Colorimeter

**Photometers** 

Lux meter

**Beam Profiler** 

עקרון פעולה •

• יכולות ומגבלות מדידה

▶ אופן הצבה מודד – נמדד ורגישויות ההצבה.

• תנאי סביבה למדידה כמו רעידות מותרות, שכבתיות אויר היכן שנדרש וכו'.

אופני הפעלה •

• תובנות מתפוקות המדידה.

● כיול.



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# Thonk You