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Deliverable 5.8 Photonics videos

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	





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1. Introduction

The document has been prepared on the basis of the completed Task T5.5: Promotional videos for photonics.

The task objective was to put short pitches (<5 min) of business ideas from photonics-oriented SMEs on film in order to increase their visibility among potential customers, partners and clients. The aim was to raise awareness among the photonics community for business opportunities and in general, generate interest for photonics technologies.

The task was implemented in two stages.

First, an experimental video contest has been organized in order to identify the feasibility of presenting the complex photonics ideas and concepts in short videos. In contrast to less high-tech ventures photonics SMEs are very specialized in terms of technical expertise required for the development of products and services. Therefore, it was decided to test, whether it would be possible to simplify the messages about photonics products and make them clear and understandable to a general public. To that end, LITEK used the gamification approach to develop a framework for a business idea competition which was implemented during the national laser technology convention. A detailed description of this approach is provided below.

Second, an online competition has been organized, calling photonics SMEs and stakeholders to upload self-made videos, presenting innovative photonics ideas and applications, on video platforms, such as YouTube or vimeo. All video pitches submitted in the contest were disseminated through social media with the aim to publicize photonics SMEs and their products, and make them commercially more appealing to a potential customer, client or an end-user. The description of the competition process is provided in the text below.

The implementation of the task proved that the idea of short business pitches is feasible even in the case of highly technical products and/or product ideas – it all depends on providing a coherent structure and guidelines on how to present the idea on film. Hence, in order to ensure the photonics ideas are presented in a structured way, submission forms have been prepared for the contest which included closed questions helping the companies to structure and prepare their video presentations for the RespiceSME video pitch contest.

2. The Photonics Business idea Contest overview

As mentioned above, the task was implemented in two stages. Below there is a detail description of each stage.

Stage 1. The experimental setup and feasibility testing of a business pitch contest for photonics SMEs and startups.

The activities, carried out by LITEK at this stage, included the following steps:

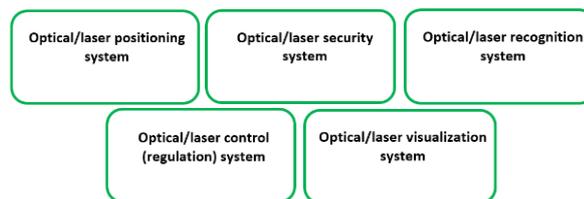
- Identifying companies interested in creating promotional videos that feature new business ideas, including some photonics startups such as Quantum Light Instrument, Eblana Photonics, LIDARIS as well as established companies (Light Conversion, Altechna R&D, Altechna, Ekspla).
- Preparing the technical specifications for organizing the promotional videos presenting new business pitches.
- Developing a new photonics related pitch concept (game):

- The task of presenting new business ideas in a video pitch was introduced to photonics SMEs, using a gamification approach. Companies had to challenge their staff to come up with new ideas based on randomly selected technologies and application industries. The most important criterion here was to show how photonics can improve the world around us.
- Process of the task:
 - Companies brought together a team of at least 3 people;
 - Teams are introduced to the rules;
 - Teams have to randomly choose two out of nine cards with different application industries (AI) written on them: (AI1) Security; (AI2) Sports; (AI3) Entertainment/Education/Home; (AI4) Production; (AI5) Software; (AI6) Aeronautics; (AI7) Infrastructure; (AI8) Medicine/Healthcare; (AI9) Leisure/Traveling;

 <p>Entertainment/ Education/Home</p> <p><small>Intelligent toys, robots for home, hobby, education and entertainment/home</small></p>	 <p>Production</p> <p><small>Welding, handling, assembling, disassembling</small></p>	 <p>Aeronautics</p> <p><small>Aerial platforms, UAVs, transport copters, high-flying drones, micro-drones</small></p>
 <p>Software</p> <p><small>Modeling, measurements, controlling, analysis</small></p>	 <p>Infrastructure</p> <p><small>Demolition, dismantling, inspection, construction support and maintenance</small></p>	 <p>Medicine/ Healthcare</p> <p><small>Surgery, assistive healthcare, household chores, diagnostics, rehabilitation</small></p>
 <p>Leisure/Traveling</p> <p><small>Autonomous vehicles, automatic trains, goods transportation</small></p>	 <p>Security</p> <p><small>Public & Private security, handling hazardous materials, firefighting, demining</small></p>	 <p>Sports</p> <p><small>Training robots, well-being</small></p>

Cards of Application Industries (AI).

- Teams have to randomly choose one out of five cards with different technologies (T) written on them: (T1) Optical/laser positioning system; (T2) Optical/laser control (regulation) system; (T3) Optical/laser visualization system; (T4) Optical/laser security system; (T5) Optical/laser recognition system;



Cards of Technologies (T).

- Teams have to choose individually, for which application industry (one of two AI cards) they will develop a better technological solution (one T card) by using photonics related knowledge;
- Teams are challenged to prepare a business idea in 10 minutes;
- And to present the new business idea in a short pitch (<5min). Teams can get extra points, if they can already provide the technology needed or if they can demonstrate during their presentation that they would be able to find a favourable solution, get a patent or if they can prove that their application is ready for introduction into the US or any other mass market.



- Preparing promotional videos (short film pitches (<5 min)) of business ideas.

The new business ideas pitch competition launched by the LITEK cluster was organised during the annual laser ecosystem event near Vilnius, Lithuania;



The outcome of the activities: Experimental short film pitches (<5 min) of business ideas:

- Short sum-up video: <https://drive.google.com/file/d/0B7sWSdq4ia2AWU8tY08zendGN1k/view?usp=sharing>
- Experimental video 1: <https://drive.google.com/file/d/0B7sWSdq4ia2Aa1JoMTR3TzhWR00/view?usp=sharing>
- Experimental video 2: <https://drive.google.com/file/d/0B7sWSdq4ia2AZE1LMmZaSHVUSUk/view?usp=sharing>
- Experimental video 3: <https://drive.google.com/file/d/0B7sWSdq4ia2AWjZRdVQ0Sfc2S3c/view?usp=sharing>
- Experimental video 4: <https://drive.google.com/file/d/0B7sWSdq4ia2AWjJtOEtkZk9kVWc/view?usp=sharing>
- Experimental video 5: <https://drive.google.com/file/d/0B7sWSdq4ia2AMDlzaDFBcFdsejQ/view?usp=sharing>
- Experimental video 6: <https://drive.google.com/file/d/0B7sWSdq4ia2AMzNKMgdPMU5ZcVU/view?usp=sharing>
- Experimental video 7: <https://drive.google.com/file/d/0B7sWSdq4ia2ASWNaZiIJZjJJSWc/view?usp=sharing>

The main outcome of this stage was the definition of parameters for the structure of a video pitch in photonics. These helped to define the format of video entries for the contest which was organised at the next stage.

Stage 2 – the online competition, the “RespiceSME Video Pitch Contest”

As part of the organizing the online competition a concept was prepared together with an evaluation guide and information materials for participants. The materials are included in the annex.

The following activities were undertaken by LITEK together with the coordinator S2i and the other project partners:

- Definition of the competition’s concept in consultation with the project partners (including the prize for the winning contribution);
- Setting-up of an evaluation grid (see 4.2);
- Preparation of guidelines for the participants, including the information on the submission and the evaluation process (see Annex 1);
- Approval of the evaluation jury (see 4.2);
- Preparation of communication kit, including press releases for dissemination on websites and social media (see Annex 1);
- Preparation of participation sheet (see Annex 2);
- Collection of submitted videos and completed participation sheets on an online platform, made available to the evaluators (see Annex 3).

3. Organization and promotion

3.1 Time Schedule

The time schedule of the Contest is presented in Table 1 below.

Table I: Dissemination metrics up to M18 (June 2017)	
Date	Event
May, 2016	Technical specifications for organizing the promotional videos featuring pitches of new business ideas.
July, 2016	Developed photonics related pitch concept (game) for stimulating new ideas creation Promotional activities



August, 2016	New business ideas pitch competition of LITEK cluster
November, 2016	7 experimental video clips (<5 min)) of business ideas prepared for testing the feasibility of the photonics business idea contest
15 September, 2017	Announcement of the RespiceSME video pitch contest on social media, on the ECCP website and on the project partners' websites
31 October, 2017	Start of the evaluation of the submitted entries (23 in total)
30 November, 2017	Announcement of the winner and the sharing of the video contest entries on YouTube

3.2 Promotion Campaign

The video contest was promoted using the following channels:

- Posts on social media using multiple accounts on social media (mostly LinkedIn)
- Direct emailing to cluster members via cluster coordinators
- Direct contacting of individual SMEs by email and/or phone
- News entries about the contest on the project website
- News entries on the websites of the project partners

The references to the links with the contest information are summarized in the table below (listed according to the ranking by Google Search).

Table 2: The references to the links with the contest information		
Title of the online announcement	Website link	Main target audience
RespiceSME Video Pitch Contest	https://www.clustercollaboration.eu/profile-events/respicesme-video-pitch-contest	Cluster managers and public-at-large
Participate – RespiceSME Photonics Video Pitch Contest	https://www.photonics21.org/2017/participate---respicesme-photonics-video-pitch-contest---application-deadline-31st-october-2017	Photonics SMEs, cluster managers
RespiceSME Video Pitch Contest Results	http://www.respice-sme.eu/video-pitch-contest/	Consortium members and public-at-large
RespiceSME Video Pitch Contest	https://www.youtube.com/playlist?list=PLjalL9DXG6e5kSzvLWsQHzU4DRyS9LVb	Contestants, public-at-large
RespiceSME Video Pitch contest shows novel applications of photonics	https://www.linkedin.com/pulse/respicesme-video-pitch-contest-shows-novel-applications-respice-sme/	Public-at-large
RespiceSME Video Pitch Contest	https://idw-online.de/de/news683057	Cluster members, public-at-large
RespiceSME Video Pitch Contest	https://www.newstag.de/respicesme-video-pitch-contest-191141.html/	Public-at-large
RespiceSME Video Pitch Contest	http://optecnet.de/news/detail/respicesme-video-pitch-contest-1040/	Cluster members



RespiceSME Video Pitch Contest	https://www.linkedin.com/pulse/respicesme-video-pitch-contest-respice-sme/	Cluster managers and public-at-large
RespiceSME Video Pitch Contest	https://medizin-aspekte.de/97210-respicesme-video-pitch-contest/	Cluster managers and public-at-large
RespiceSME-Event	https://www.photonik.de/respicesme-event/150/22524/360673	Cluster managers and public-at-large

4. Results

4.1 Participation and submissions

23 submissions have been made through the RespiceSME website where a dedicate page and e-mail address (videocontest@respice-sme.eu) for the submission was created.

The following 22 SME, 1 medium company and 1 RTO submitted entries to the competition (the participation forms that were completed by the entrants are added in the Annex 3 to this document):

- ADOK (Paris, France)
- Blueacre Technology (Dundalk, Ireland)
- DNAPhone (Parma, Italy)
- Hofbauer Optik Mess- &Prueftechnik (Munich, Germany)
- ICFO (Barcelona, Spain), an RTO organization
- ICON Photonics (Champs-sur-Marne, France)
- Integrated Optics (Vilnius, Lithuania)
- IOXP (Mannheim, Germany)
- Laser Quantum (Stockport, UK), a medium-size company
- Lastronics Jena (Jena, Germany)
- Lidaris (Vilnius, Lithuania)
- Lupyled (Forchtenberg, Germany)
- LuxFlux (Reutlingen, Germany)
- New Infrared Technologies (Madrid, Spain)
- Nyfors Teknologi AB (Stockholm, Sweden)
- Radiantis (Barcelona, Spain)
- Peen Up (Palaiseau, France) – a start-up team
- Sensl (Cork, Ireland)
- Sensofar (Barcelona, Spain)
- Silitec (Saclay, France)

- Taylor Dowding Innovation (Flint, UK)
- Workshop of Photonics (Vilnius, Lithuania)
- Zéphyr Solar (Paris, France)

The following new product and/or new product ideas have been presented.

Table 3: The list of new products and new product ideas presented

Entrant	New product and/or new product idea
ADOK	Interactive surface
Blueacre Technology	Laser micromachining equipment
DNAPhone	Portable spectrophotometer
Hofbauer Optik Mess- &Prueftechnik	Optical measurement solution for 3D measurements
ICFO	Unique Quantum-Dot / Graphene technology sensor
ICON Photonics	High performance optical coupling and packaging solutions
Integrated Optics	Very compact sources for spectroscopy and LIDAR applications
IOXP	Augmented Reality Annotation the System
Laser Quantum	A shock-proved high-powered continuous wave laser
Lastronics Jena	A laser system for Laser Shock Peening
Lidaris	Laser-induced damage testing services
Lupyled	LED light products
LuxFlux	Micro spectrometer solutions
New Infrared Technologies	System for closed-loop control of the laser power applied to metal Laser Additive Manufacturing processes
Nyfors Teknologi AB	PbSe sensor technology for Laser Additive Manufacturing
Radiantis	A femtosecond optical parameter oscillator
Peen-Up	Laser Shock Peening solution with optical fibres
Sensl	Solid-state silicon photomultiplier sensors
Sensofar	Ferroelectric liquid crystal on silicon (FLCoS) micro-display
Silitec	DLP sources
Taylor Dowding Innovation	Multi-gas sensor
Workshop of Photonics	Laser micromachining solutions
Zéphyr Solar	Autonomous photovoltaic systems

The geographical distribution of the entrants (altogether – 23 contestants) was as follows:

- France – 5
- Ireland – 2
- Italy – 1
- Germany – 5
- Lithuania – 3
- Spain – 4
- Sweden – 1
- UK – 2

The distribution according to the company age is visualized in Figure 1.

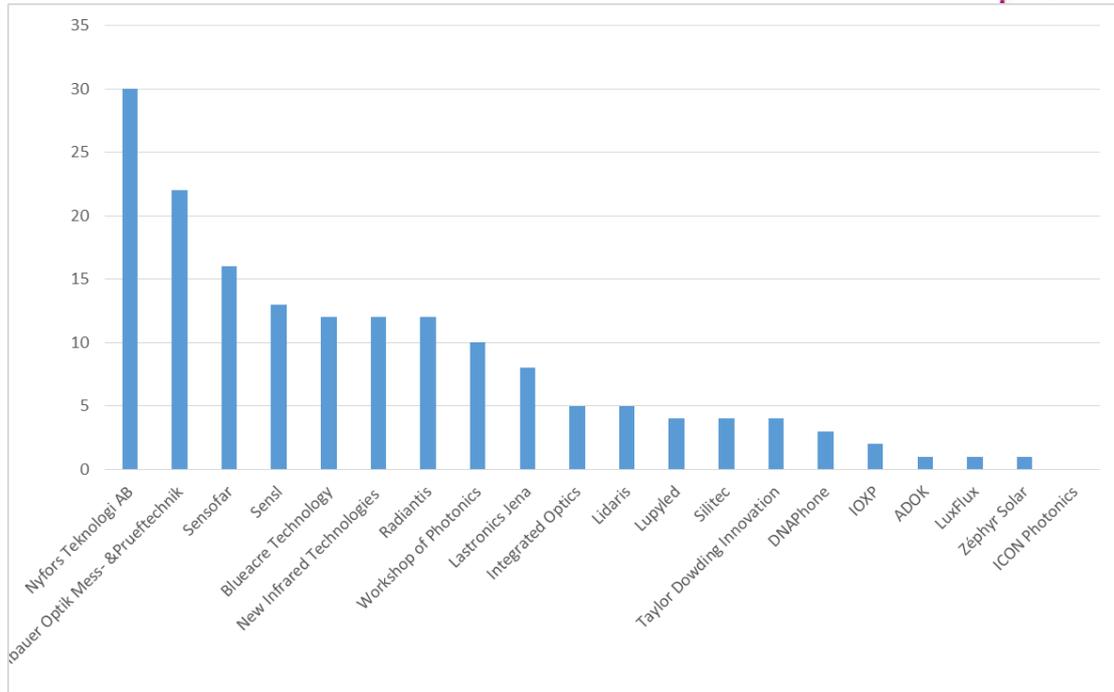


Figure 1: A distribution according to the company age

The distribution according to the number of employees at the company is visualized in Figure 2.

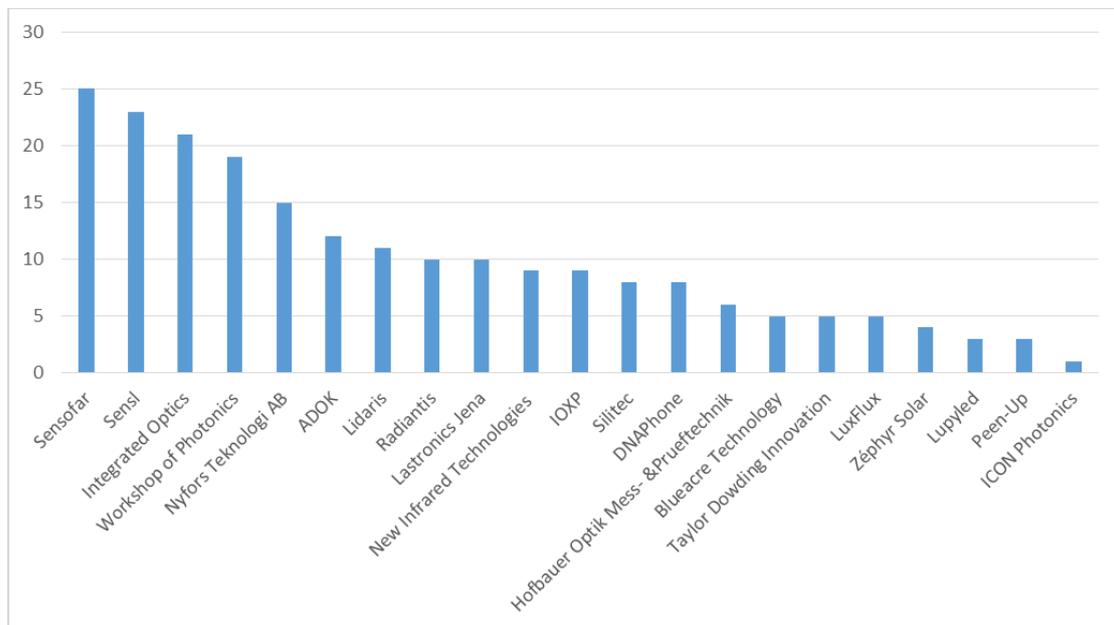


Figure 2: A distribution according to the number of employees

4.2 Evaluation process

The evaluation was done by the jury approved by the consortium members. The jury consisted of the following representatives from the consortium partners:

- Samantha Michaux (Steinbeis2i GmbH, Germany) – Chairwoman



- Linas Eriksonas (LITEK, Lithuania)
- Pierre-Yves Fonjallaz / Lennart Svensson (PhotonicsSweden, Sweden)
- Paul Stefanut (OpticsValley, France)
- Mary Konstantaki (FORTH, Greece)
- Gerard O'Connor (NUI Galway)

Each Jury member was given access to the submitted videos and was asked to complete the evaluation forms distributed in an xls sheet.

The evaluation form consisted of four main criteria and two criteria to be used in case of a tie, namely:

- **Criterion 1 – Innovativeness and originality.** Evaluators had to consider whether the idea or product presented in the video is innovative, ergo it applies photonics technology in a new and original way and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.
- **Criterion 2 – Improvement or optimization.** Evaluators had to consider whether the idea or product presented constitutes a significant improvement/optimization of a photonics technology/application and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.
- **Criterion 3 – Level of development.** Evaluators had to consider whether the product presented is well developed (high TRL level) and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.
- **Criterion 4 – Commercialization potential.** Evaluators had to consider whether the idea or product presented has high potential for commercialization and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.
- **Criterion 5 (to be used in the aggregate score case of a tie) – Completeness of the presentation.** Evaluators had to consider the presentation of the product/idea of the company, e.g. if it covers all important aspects/provides enough information (basic concept, TRL level, performance test values etc.), and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.
- **Criterion 6 (to be used in the aggregate score in case of a tie) – Clarity of the presentation.** Evaluators had to consider whether the product/idea is presented in an appealing way, e.g. if illustrations or pictures of demonstrator are used, and had to give a score from 1 to 4 where 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.

The following weightings were defined:

- Criterion 1 – 0,25
- Criterion 2 – 0,125
- Criterion 3 – 0,1875
- Criterion 4 – 0,25
- Criterion 5 – 0,125
- Criterion 6 – 0,0625



4.3 Awardees

The RespiceSME Video Pitch Contest received contributions from photonics companies from across Europe, featuring many interesting photonics products and solutions.

The aggregated scores from the evaluators showed that the most convincing video was submitted by French start-up ADOK, which presented 'GetADOK', an innovative product turning any surface into a tactile screen. The evaluators considered 'GetADOK' being an exciting solution with great market potential the world should know about. RespiceSME therefore decided to support the product marketing, awarding ADOK with the sponsored production of a professional video for this innovative product.

The ADOK video pitch can be watched on

<https://www.youtube.com/watch?v=gtQ8btXSQk&feature=youtu.be>

Altogether 23 videos were submitted in the RespiceSME Video Pitch Contest, each video presenting interesting photonics solutions and products that demonstrate photonics is a key-enabling technology with a diverse application potential, from Manufacturing to Food Production and many more sectors.

All submitted videos have been made available on <http://www.respice-sme.eu/video-pitch-contest/>

The evaluation results (aggregating scores from all 7 evaluators) are presented in the table below. NB: the score figures are confidential and have not been publicized.

Table 4: The evaluation results	
Company	Aggregate Score
ADOK	2,78
DNAPhone	2,71
Zephir Solar	2,66
Integrated Optics	2,58
IOXP	2,58
ICFO	2,54
Lastronics Jena	2,51
Silltec	2,49
Nyfors Teknolog AB	2,42
LuxFlux	2,35
Lupyled	2,31
Sensl	2,30
WOP	2,29
Sensofar	2,28
ICON Photonics	2,23
Laser Quantum	2,22
Clamir	2,15
Hofbauer	2,14
Peen Up	2,11
Taylor Dowding Innovation	2,11
Lidaris	2,06
Radiantis	1,94
Blueacre Technology	1,78



4. Conclusions

The implementation of the task proved that the idea of organizing a short business pitch contest is feasible even if the pitches are to promote very technical products and/or product ideas – it all depends on providing a coherent structure and guidelines on how to put the ideas on film. In order to guarantee a structured presentation of photonics idea in the video pitches, submission forms have been prepared which included closed questions helping the companies to structure and prepare their video presentations for the RespiceSME video pitch contest.

The contest was well received by the photonics community and altogether 23 entries have been submitted, all of which have been deemed relevant for the competition in terms of their thematic scope and the requirements for the duration of the videos.

5. Summary

The deliverable described the process of developing the concept for the business pitch competition, testing it, experimenting and validating the concept, developing the concept for the full-scale online competition of business ideas in photonics, running the promotional campaign, gathering and evaluating the submitted video pitches and selecting the awardees.

The document includes also the promotional materials used for the video contest and the participation sheets (the competition applicant forms) completed by the contestants.



Annex 1: Promotional materials used for the video contest

Text for promoting the contest online

RespiceSME Photonics Video Pitch Contest

The European project RespiceSME offers you the opportunity to present your innovative business idea in a 'video elevator pitch' to the European photonics community

Pitch your photonics business idea or innovative product and get awarded with a professionally edited video to boost your company's promotion amongst investors' community and market leaders

You are a **Start-up or a Small & Medium-sized Enterprise (SME)** with a great idea or a product with high potential for exploitation and commercialisation?

Then present your idea or product in a **short video of less than 5 minutes**, upload it on YouTube (or any other video platform) and send the link to videocontest@respice-sme.eu by latest 31st October 2017.

RespiceSME will promote your video on its website and among its networks of European photonics companies, clusters and research institutions. A jury of photonics business experts will select the 3 most convincing videos based on the **uniqueness of the idea** they present, the **added-value for dedicated business cases** thus far and the **potential for further exploitation**.

The creative company behind the winning video will have the chance to work with a marketing agency to make a **professionally edited video**, to be used for promoting their innovative products to investors, business partners and customers. On top, they will get a **free training on business development and innovation management**, funded fully by the RespiceSME project.

For more information on how to participate in the RespiceSME Video Pitch Contest and the terms & conditions, please see the website www.respice-sme.eu/videopitchcontest

Text, describing the Contest in further detail, published on the RespiceSME website

RespiceSME Video Pitch Contest

RespiceSME offers you the opportunity for a 'video elevator pitch' to the photonics community

Pitch your photonics business idea or innovative product and get awarded with a professionally edited video to boost your company's promotion to investors, business partners and customers

How to participate?

In this competition innovative ideas will be highlighted. Photonics and other light technologies impact almost all areas of our daily lives and are the basis for many innovations in industry. Your company has developed a new product that will add to the success story of light technologies? Are you using innovative optics and/or photonics applications in current projects of your company? You have a great business idea for engineering applications of light?

Make a short, less than 5 minute video that demonstrates the **uniqueness of your idea** and the **added value** it will have **for integrators or end-users**. Be creative and keep your message clear. Do not hesitate to use visuals or simulation to present your idea, prototype or product.

Upload the video on YouTube or any other platform and send the link to videocontest@respice-sme.eu. Please also send along this filled-out participant sheet (hyperlink or see attachment).



The deadline for submitting your contribution is 31.10.2017

Why to participate?

RespiceSME will select among all submitted videos the 3 most convincing regarding the uniqueness of the idea they present, the added value for photonics integrators or end-users and its potential for further exploitation.

The creative company behind the winning video will have the chance to work with a marketing agency to make a **professionally edited video**, to be used for promoting their innovative products to investors, business partners and customers. On top, the company will get a **free training on business development and innovation management**, funded fully by the RespiceSME project.

Free tickets to the Internet of Things Solutions World Congress in Barcelona, for contestants submitting before 30th of September

All participants, submitting their contribution before **September 30th** will get free tickets to the Internet of Things Solutions World Congress. At the fair, they will be invited to attend the **RespiceSME event "Success Stories on Cross-Sectoral Innovation – Light Technologies in Manufacturing, Energy and Transport"** on **October 3rd 2017**.

For more information on how to participate in the contest and the terms and conditions, please read the FAQ below.

FAQ – Terms & Conditions

1) How to make the video?

You can use any video recording device (Smartphone etc.) at your hands, given that it outputs editable video files. You are free to select the way you want to present your product. However, it is encouraged that during your presentation you try to answer some of the questions as follows:

- What is the need that you are trying to address with your new product/application? How come that you know that there is a market for that?
- What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any?
- What photonics technologies have been used to develop the new product/application?
- What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application?

Please use **visuals, slides or any simulation effects** to demonstrate your business idea or product.

The presentations in each video submitted should be given in English. However, it is possible to provide English subtitles, if your chosen speaker is not fluent in English.

2) What happens to my video after I sent it to the RespiceSME consortium?

You will receive a mail that your video has been received in 2-3 working days after your submission at the latest. Once the competition is closed (**31.10.2017 – deadline of submission**) all videos will be uploaded on the project website and promoted among the networks of the RespiceSME consortium (companies, clusters and research institutions). After submission closing, the jury will get together to select the best videos (see point 4).

3) Will all submitted videos be published by RespiceSME?

We certainly want to publish all videos submitted and promote them among our contacts. However, we reserve us the right to not publish the video, in case it features discriminating content. The mere submission of the link to the video does not constitute a claim for publication through the RespiceSME channels.



4) Who will assess the videos and on basis of which criteria?

A jury composed of experienced photonics experts and business developers from the RespiceSME consortium will evaluate each video. The best videos will be selected on basis of the uniqueness of the idea presented, the level of the development thus far and the potential for future growth. Also, the numbers of clicks, shares and likes the videos received from the online community will be taken into account.

The members of the Jury:

- Samantha Michaux (Steinbeis2i GmbH, Germany) – Chairwoman
- Linas Eriksonas (LITEK, Lithuania)
- Pierre-Yves Fonjallaz/Lennart Svensson (PhotonicsSweden, Sweden)
- Paul Stefanut (OpticsValley, France)
- Mary Konstantaki (FORTH, Greece)
- Gerard O'Connor (NUI Galway)

5) When will the winner get informed?

As soon as the jury has decided on the winning video, the creative mind(s) behind this video will be informed. The winner will be also announced on the project website as well as on the media channels of the RespiceSME partners.



Annex 2: Participation Sheet

Company Data (please fill in with the data of the company submitting the video)	
Company Name:	Country:
	Founded in (Year):
Address:	Number of Employees:
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? How come that you know that there is a market for that? (Max. 400 characters)	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)

* All boxes are compulsory; character limits do not include spaces



Annex 3: Participation sheets completed by the contestants

Company Data (please fill in with the data of the company submitting the video)	
Company Name: LuxFlux GmbH	Country: Germany
	Founded in (Year): 2016
Address: Gerhard-Kindier-Str. 13, 72770 Reutlingen, Germany	Number of Employees: 5
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
We develop and market compact and cost efficient micro-spectrometer solutions. We specifically address the use case "incoming goods inspection" in the Polymer industry. The customers need a solution to make product quality visible across the supply chain. We have already sold a double digit number of devices (e.g. in Germany, Austria, China, Japan) and have received positive customer feedback.	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
Our spectrometer solution gives immediate results without waiting for the analysis performed by outside labs. Users do not need to send sample material by mail, results are generated real-time and on-site. There are some other players who manufacture micro-spectrometers such as SCiO or Spectral Engines. Both do not address the incoming goods inspection in the Polymer industry. SCiO focuses on consumer food whereas Spectral Engines has started to work on pharma applications.	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
The underlying chip technology MEMS allows lower cost levels and better signal quality compared to existing spectrometers. We make use of multivariate data analysis to extract meaningful information from the MEMS sensor.	Our spectrometer solution is targeted at businesses which so far did not make use of expensive spectroscopy. The users are part of a wider supply chain exposed to fluctuating product quality. With the measurements on site customers reduce loss of production, reduce failure cost and get an immediate return on investment.
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: HOFBAUER OPT1K Mess- &Pruftechnik	Country: Germany
	Founded in (Year): 1995
Address: Petzetstrasse 8 81245 Munchen	Number of Employees: 6
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>Optical angle and position sensors are limited by vignettation in measurement range and distance, e.g. straightness measurement or centration measurement on lenses. Complicated, affordable hardware is needed to realize 3-D measurements. Also the use of focusing on different/ changing radius of curvature on aspheres is a large problem. The need for customer is a simple and easy and also precise measurement technique for up to 6 DoF, even on aspheres.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>The solution is vignettation as a physical measuring principle by removing the reticle and using enlarged illuminated object field. The whole field of view then is influenced by transforming and vignetting reflected light through field and aperture stop of the optical system producing a vignettted V-SPOT. Through the use of a fuzzy blurry exit hatch and evaluation by image processing, insensitivity to defocusing effects of the surface under Test is achieved. Using a retro-reflector element, we are able to detect lateral displacement in X- and Y-direction, for use as alignment telescope.</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Following photonics technologies are used: Vignettation as a physical measurement principle The functionality of pupils and hatches The use of a fuzzy blurry exit hatch Evaluation by image processing High Power LED light	The benefits are: measuring range 2 times of same AC-Data even in larger distance up to 50 ... 100 m same straightness advantages as AC 3 times higher resolving power by V-Spot The use of electronic sighting telescope
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Sensl	Country: Ireland
	Founded in (Year): 2004
Address: Airport East Business & Technology Park, 6800, Rathmacullig W, Cork, Ireland	Number of Employees: N/A
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>The solid-state silicon photomultiplier is a disruptive and enabling technology that replaces the aging vacuum tube based photomultiplier in medical imaging, radiation detection, life science and analytical instruments. SensL has pioneered the production of its detector technology in high volume, industry standard, semiconductor fabrication facilities delivering unprecedented performance, uniformity, quality, reliability and low cost.</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>SensL's C-Series sensors feature industry-leading low dark count rates of 30kHz/mm² typical, in combination with exceptional breakdown voltage uniformity of ± 250mV. The high PDE extends far into the blue part of the spectrum using a high-volume, P-on-N silicon process.</p>	
<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <p>Sensl sensors are found in: Medical Imaging, Lidar, Hazard and threat detection, Biophotonics, and High Energy Physics applications. Each Application is being developed independently for maximum impact</p>	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <p>Unprecedented performance, uniformity, quality, reliability and low cost. SensL solutions enable OEM and research customers to develop new classes of products based on our low light detectors small size, physical robustness and low power operation</p>
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Taylor Dowding Innovation	Country: Wales, UK
	Founded in (Year): 2013
Address: Unit 3, Field Farm Oakenholt Lane Flint Flintshire Wales, UK CH6 5SU	Number of Employees: 0-9
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>TDI's design engineering team has many years' experience of developing highly innovative electronic products for both consumer and professional markets. Limited reliability of today's gas sensors gives rise of ongoing maintenance and associated costs. In addition, each unit detects one or two gases at once. By already working with "Amethyst Research", we intend to make the next leap: we are going to create a multi-gas sensor.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>Over the last two years we have developed expertise in gas margining solutions, primarily for the oil, gas and mine markets, also suitable for others. Working closely with "Amethyst Research", we are developing new commercial sensor – multi-gas sensor housed in a small plastic enclosure (few centimetres diameter). It will be capable of sensing two or more gases which existing sensors can't do.</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Main advantage - low cost white light LED source in compare with ALD technology for gas sensor.	Ability to sensor two or more gases at once Compactness of multi-gas sensor
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Blueacre Technology	Country: Ireland
	Founded in (Year): 2005
Address: Aiken Business Park Old Coe's Road Dundalk Co Louth Ireland	Number of Employees: 5
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>Blueacre Technology is specialised in the development and manufacture of dedicated, highly accurate, laser micromachining equipment used to process various polymers, metals, ceramics and glass, primarily for the medical device industry.</p> <p>With our extensive design experience in lasers, micromaching, vision systems and software interfacing, Blueacre Technology is able to offer its customers highly sophisticated solutions to the most demanding engineering problems.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>By combining our inter-disciplinary knowledge and passion for quality, Blueacre Technology is ideally placed to advise its customers on the optimum laser manufacturing processes and machine configurations for their products.</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Lasers and optics Machine integration Machine vision control and inspection Automation and customised part handling Software / Hardware Interfacing Design & Supply of OEM solutions	Expert advice and support for laser products in Ireland
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: DNAPhone Sri	Country: Italy
	Founded in (Year): 2014
Address: Viale Mentana 150, 43124 - Parma, Italy	Number of Employees: 8
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>We propose a new diagnostic platform for food quality control that allows to any producers of the main European food chains to realize analysis in a simple, smart and economic way, anywhere and at any time. We have well studied this market during our research at the University before, and during the last 3 years with direct experience.</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>DNAPhone platform consists of a new portable diagnostic device for agrifood sector. The hardware is driven by a simple APP that manages the system, by guiding the user through the whole analysis process. The APP is connected to cloud services for secure data storage and tracking; the user can compare, process and share results in real time with his network. The platform offers a solution that make the system complete, smart and accessible to all users.</p>	
<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <p>The developed system (patent pending) is based on spectrophotometry; it lowers the cost of the instrument -problem of current technologies – keeping high performance with a complete range of analyses</p>	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <p>Our customers have the possibility to carry out "in-house" food quality controls, reducing time and cost per analysis. In addition, increasing internal controls optimizes production processes (Reducing production costs related to process and waste) and improving the quality of their products and thus their competitiveness on the market.</p>
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: ICFO	Country: Spain
	Founded in (Year): 2002
Address: Av. Carl Friedrich Gauss nº 3 (Parc Tecnològic del Mediterrani) Castelldefels, 08860 Barcelona (Cataluña)	Number of Employees: 300
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
Night vision, medical applications, smartphone, security, food inspection	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<ul style="list-style-type: none"> • Unique Quantum-Dot / Graphene technology • High resolution (>1MegaPixel) • Monolithic integration with Si-CMOS read-out integrated circuit • Low cost • High sensitivity (10-6 W/m2) • Ultra-high gain (108) and responsivity (107 A/W) 	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Sensoring	<ul style="list-style-type: none"> • Unique Quantum-Dot / Graphene technology • High resolution (>1MegaPixel) • Monolithic integration with Si-CMOS read-out integrated circuit • Low cost • High sensitivity (10-6 W/m2) • Ultra-high gain (108) and responsivity (107 A/W)
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: ICON Photonics	Country: France
	Founded in (Year): 2017
Address: 23, Rue Alfred Nobel 77420 Champs-sur-Marne	Number of Employees:
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
Fiber to device coupling and packaging represents today a major challenge in terms of complexity and cost regarding the continues demand of high-speed optical communication. ICON Photonics proposes innovative high performance optical coupling and packaging solutions for high speed optical communications.	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
ICON Photonics proposes solutions that offers: Small-size high-speed fiber-to-device optical coupling and packaging; High tolerance on optical alignment and assembly – Passive Alignment; Collective manufacturing which allows a large deployment of high speed fiber-to-device connectivity.	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Micro Electrical Mechanical Systems (MEMS). 3D Polymer structuring.	Small-size high-speed optical coupling and packaging; Applicable with VCSEL and photodiodes, to single-mode and multi-mode optical fibers; High tolerance to optical misalignment, vibrations and temperature; Compatible with passive alignment machines; Applications to datacom (DC, AOC, etc.) and telecom up to 400Gbps;
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Integrated Optics	Country: Lithuania
	Founded in (Year): 2012
Address: Kalvariju st. 125B, XI build., LT-08221 Vilnius Lithuania	Number of Employees: 21
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>Quite often lasers are offered bulky, with excessive heat-sinks and multiple interconnect cables making both installation and shipping complicated. Our very compact laser sources for spectroscopy and LiDAR applications (Matchbox) is simply the smallest laser in the market. Also, responding to the needs of scientist and integrators we introduce laser rentals, trade-in and sale from stock of selected 30 most popular laser configurations.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>With Matchbox we have always sought for simplicity and ease of use. It is the smallest laser in the market.</p> <p>We develop proprietary optics assembly method, based on robotics and unique software solutions and we ensure complete process control and fast adaptation to customer needs.</p> <p>Often you need to try out many different lasers before deciding about the best wavelength, bandwidth or beam delivery option. Responding to this, we introduce laser rentals of 15 models of lasers.</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
<p>Scientific and OEM lasers covering CW and pulsed lasers as well as 4 colour laser combines.</p> <p>Proprietary optics assembly method allows fast wavelength tuning in FBG-stabilized diode lasers.</p>	<ul style="list-style-type: none"> • Simplicity • Easy to use • Easy to transport • Tuning wavelength lasers • Laser rentals
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Laser Quantum	Country: UK
	Founded in (Year): 1994
Address: Emery Court, Vale Road, Stockport, SK4 3GL. UK	Number of Employees: 190
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>Lasers are used within a range of equipment and in a variety of environments. The need we are trying to address is a laser that is both robust and reliable and can withstand numerous different environmental conditions. Even transporting a laser can result in a change of conditions it travels in. Our lasers are built to cope with these demands and ensure confidence to our customers that upon receiving their laser, it will work.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>The gem laser is a compact, low noise, high-powered continuous wave laser. It is suitable for a range of applications from DNA sequencing to fluorescent imaging. It can, unlike many lasers, be dropped from a drone, run over by a Range Rover, placed in a tumble dryer, hit by a wacker plate and frozen in a block of ice (however, doing these will invalidate the warranty, which is why we've done them for you).</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
<ul style="list-style-type: none"> • Mono block design • Propriety optics fixings • Robust 1200 g drop testing • Hermetically sealed cavity • PowerLoQ power stability • Extreme stability 	<ul style="list-style-type: none"> • A robust and reliable laser that has a MTTF >100,000 hours • A laser that will remove any worry of failure due to environmental conditions. • Excellent power stability and noise
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Lastronics Jena	Country: Germany
	Founded in (Year): 2009
Address: Winzerlaer Strafie 2, 07745 Jena, Germany	Number of Employees: 10
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>Laser Shock Peening (LSP) is a technology used for improving fatigue life and periods of safe usage of metal components. So far LSP is restricted to the production of very limited, mostly expensive and critical components.</p> <p>The EXTRALASE system, being based on a modular laser system, will allow for less expensive service applications of components which are even more difficult to approach, like bridges, engines, etc. EXTRALASE will reduce both the initial investment as well as LSP process cost.</p> <p>With very small modifications EXTRALASE is also applicable for forming very complex 3D shapes or testing adhesion of composite materials.</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>EXTRALASE modularity and mobility is unique. Modularity allows adjustment of final laser energy per pulse according to the needs of the end user and specific applications. The small size (in a standard van) and design of EXTRALASE laser system allows for treatment of components under working conditions in the field. Similar solutions from USA (Curtiss Wright - big truck) and Japan (laser pulse energy more than 10 times less than EXTRALASE) are not comparable. Additionally, solutions from USA and Japan are not available on the European market.</p>	
<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <ul style="list-style-type: none"> • Newly developed Laser Diode Pump Engines • New approach of cooling lasing crystal • New laser head design 	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <ul style="list-style-type: none"> • Increase of fatigue life of metal components (7 times for Aluminium and Titanium, and 3 time for steel) • Application of LSP during production and servicing • Adjustment of EXTRALASE system parameters to reduce investment and process cost • Short downtime, EXTRALASE system is operating if one of modules is out of order. Defective module can be easily replaced by spare unit • Can be also used for other applications (forming, adhesion testing, paint removal)
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: LIDARIS	Country: Lithuania
	Founded in (Year): 2012
Address: Sauletekio al 10, Vilnius	Number of Employees: 11
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>The need we try to address is the spread of information, which could be very beneficial to the laser optics manufacturers. In our daily work, we meet laser optic companies which face challenges related to the physical phenomenon known as laser-induced damage. The idea of our business model is a little bit controversial. We destroy optical elements in order to find out how good and reliable they are. Of course, we do it in a smart way. One of the main reasons why optics break is optically active defects, generated during optics production process. In this video, we present solutions for optics manufacturers, which can lead to the development of the superior products</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>The 1-on-1 test procedure is not something novel (we did not invent it). In fact, it is the standard procedure. However, there is a novel way to use the information gathered during this procedure. Not all optics manufacturers know, that this simple procedure could be a mighty tool to understand (and to fight) their worst enemy – unwanted defects generated during optics production process. If they could reduce or eliminate these defects, they would increase the value of their products. Lidaris did not invent this procedure, but we learned it and brought it from the science world to the manufacturing world (commercial world, if you like). Among other alternatives, 1-on-1 test procedure is very quick.</p>	
<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <p>Usually we use nanosecond lasers to perform 1-on-1 test procedure.</p>	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <p>Wisely used 1-on-1 test procedure is a smart tool to investigate optically active defects</p>
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: LUPYLED GmbH	Country: Germany
	Founded in (Year): 2013
Address: Hauptstrasse 2, 74670 Forchtenberg	Number of Employees: 3
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
We are aquarium and high-tech professionals, who love nature and aim to create nature realistic aquariums. Our utmost goal was to create a nature realistic aquarium lighting system for all habitats - freshwater and saltwater alike. The outcome is a fully app programmable LED lighting system. The app is an ultimate new user experience, guiding hobbyists to easily become light designers	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
It was not possible before to control light in the way LUPYLED does. Our LED light product called "theONE" is available in 4 different sizes containing 48, 96, 144, or 192 LED clusters. Every single LED light cluster consisting of 12 LEDs is controllable in light intensity, colour, and time. Customers are able to choose the ideal light for each plant or coral - individually! There is no competing product on the market. All LED wavelengths have been chosen to resemble the spectrum of the sun.	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
We have developed an LED driver circuit to drive the LEDs to have the lowest possible flicker index in combination with the ideal spectrum of the sun, resulting in the most natural light	LUPYLED "theONE" enables the highest quality of light for each individual plant or creature. Resulting in faster and healthier plant and coral growth in a nature realistic light environment. This feature never existed before in the business sector of aquarium lighting. The combination of the highest quality of light and a user intuitive programming of an LED lighting matrix via app is the clear benefit for the end-user.
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: New Infrared Technologies SL	Country: Spain
	Founded in (Year): 2005
Address: C/ Vidrieros, 30, nave 2 Boadilla del Monte, 28660 Madrid (Madrid)	Number of Employees: 9
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
Overall, PbSe sensor technology enables strong improvements in the accuracy and reliability of monitoring and closed-loop control of laser processing, compared to systems based on CMOS	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
CLAMIR is a process control system for Laser Additive Manufacturing that maintains constant process conditions using continuous on-axis melt-pool monitoring providing closed-loop control of the laser power using a 1,000 image per second MWIR camera	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Sensor head with real-time processing electronics and connectors Imaging lens	System for closed-loop control of the laser power applied to metal Laser Additive Manufacturing processes such as LMD (Laser Metal Deposition) or cladding, through the real-time on-axis infrared monitoring of the melt-pool, to maintain its geometrical parameters during the complete process.
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Peen-Up	Country: France
	Founded in (Year): not founded yet
Address: Institut d'Optique, 2 avenue Augustin Fresnel Palaiseau 91127	Number of Employees: 3
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
We want to improve the way by which industrials are strengthening metallic surfaces. Currently, they use mechanical shot peening, but as it takes times and as it is not accurate, they are trying to use Laser Shock Peening (LSP), which is both more efficient and quicker. However, LSP needs high-energy lasers, which makes it difficult for industrials to integrate this solution into their installations.	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
We will allow industrials to achieve LSP in full security and with more manoeuvrability as we are able to use optical fibers for this process. Currently, there are no European players doing LSP. European companies need to export their product to the US to perform the treatment. However, it is costly as the American solutions use mirrors to direct the laser, and it presents some risks as the laser propagates in free space. Indeed, a lot of times is lost, as the hangar needs to be evacuated.	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
With our partner, Imagine Optic, we are developing an optical technology that allows us to inject more laser power into an optical fiber without burning it.	Our end users, particularly in the aeronautical sector, will be able to quickly and efficiently reinforce their surfaces. This will save them time and money. We have estimated the cost of mechanical shot blasting at 110\$/H, while it will be 50\$/H with our solution.
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Radiantis	Country: Spain
	Founded in (Year): 2005
Address: C/ Copèrnic, 24, nave 1 (Polígon Camí Ral) Castelldefels, 8850 Barcelona (Cataluña)	Number of Employees: 10
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>The Oria® IR delivers unique conversion efficiency performance, resulting in high power levels across the wavelength range. Also, near-transform-limited pulses, excellent power stability and exceptional beam quality across the tuning range are provided.</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>The Oria® IR is a femtosecond OPO, pumped by a mode-locked femtosecond Ti:sapphire oscillator, which offers broad tunability in the near- and mid-IR. Independent tuning of the pump wavelength across 720-810 nm, and the signal wavelength across 1000-1580 nm, is provided through the two separate pump and signal output ports available in this OPO. The user can easily select amongst accessing: (i) 100% of the pump through the pump output port, with no signal through the signal port, (ii) a percentage of the pump through the pump output port, with partial signal through the signal output port, or (iii) 0% of the pump through the pump output port, with full signal through the signal output port.</p>	
<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <p>This technology is based on OPO (optical parametric oscillator)</p>	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <p>A sealed, hands-free and fully-automated femtosecond optical parametric oscillator (OPO) that offers class-leading wavelength coverage with high average power in the near- and mid-IR.</p>
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Sensofar	Country: Spain
	Founded in (Year): 2001
Address: Crta. BV- 1274 km 1. Parc Audiovisual de Catalunya Terrassa, 8225 Barcelona (Cataluña)	Number of Employees: 25
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
<p>For confocal scanning, the S neox uses Sensofar's patented technology, based on a microdisplay. The ferroelectric liquid crystal on silicon (FLCoS) microdisplay is a fast switching device that makes the scanning of confocal images fast and very stable. Combining this approach with Sensofar's high NA objectives (0.95), vertical resolution is reduced to below 1 nm. Additionally, as there are no moving parts in the sensor head, there are no maintenance and alignment issues, and the effective lifetime of the sensorhead is unlimited.</p>	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
<p>New piezo-capacitive elements control the fine vertical tracking of the sensor head, resulting in resolution down to 0.01 nm and linearity of 0.03%. And when measuring step heights, accuracy is down to 0.5%.</p>	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
<p>Optical interferometry makes use of the optical path difference between light reflected in the two arms of the interferometer (reference and sample) to yield a spatial interference pattern (interferograms) that contains information on the surface topology of the sample. Various variations of the approach can be used for particular applications.</p>	<p>The S neox uses a high-resolution CCD sensor of up to 1360×1024 pixels in combination with high-resolution displays of 2560×1440. The images acquired with S neox do not need to be up or down-scaled, so they always appear sharp, vivid and realistic on-screen.</p>
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_____ (Date, Signature)	



Company Data (please fill in with the data of the company submitting the video)	
Company Name: Zephyr Solar	Country: France
	Founded in (Year):
	Number of Employees:
Description of Business Idea, submitted for contest	
<p>What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)</p> <p>After a disaster, providing access to electricity brings a tangible solution by powering a makeshift hospital, supplying water-pumps, creating telecommunication networks to synchronize rescue organizations and securing living areas with lighting at night. Since the beginning we work with NGO and have two actual options: 1/ Thermal generators (most used solution). Cheap to buy, compact and lightweight (for the smallest) but noisy and fuel consumers (need permanent refuelling). 2/ Solar panels. Durable solution, autonomous but expensive to buy and difficult to bring on the field. requires a long installation time and human resources. They need a source of production that is quick to install, easy to set up and reliable to intervene in this type of situation. Zephyr Solar is not intended to stop at the humanitarian market; they want to bring energy to all the isolated places or where it is necessary to have a temporary source or autonomy on remote areas (perimeter security, outdoor events, telecommunication networks).</p>	
<p>What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)</p> <p>Zephyr Solar uses solar balloons to quickly bring energy and services on isolated sites and develop a lightweight solar panels technology integrated on top of their balloons. It produce enough energy to power ground activities and on-board equipments such as communication antennas or cameras. Zephyr Solar product main added values compared to his competitors: - Renewable energy, - Variable heights: 15 to 150 meters, - Installation ease & Immediate operation: 1h to unfolding, inflating and placing panels on the balloon + no need of existing infrastructure, Sensors integration and custom sizing of the balloon, number of panels and energy storage</p>	

<p>What photonics technologies have been used to develop the new product/application? (Max. 200 characters)</p> <p>We divide the weight of standard panels by a factor 9 (18 kg/m² for a standard panel at 2kg/m² for Zephyr Solar panels) and make them fly while maintaining optimum production (200W/m²). We have decomposed materials panels and have adapted a new composite assembly to an existing manufacturing process. The materials are all mature and marketed so that we can produce as soon as possible our own products. We also developed a system of special hook of the panels on the balloon and hooks for the different embedded sensors and captors. A first patent is being filed on the entire system (panels, balloons, cables and electrical management on the ground).</p>	<p>What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)</p> <p>The field actors have a renewable and autonomous energy production solution which is deployed rapidly on a constrained ground.</p> <ul style="list-style-type: none"> - No routing of fuel needed so we light up the logistics chain. - No permanent installation to build or work to perform before installation on site. Zephyr Solar kits produce electricity without harming the environment: they do not emit greenhouse gases, pollute air, water or soil and are not dangerous to wildlife and flora. Carbon life cycle analyses show that the Zephyr Solar carbon balance is 7 times lower than other generator (system / transport / recycling). - The height of the balloon makes it possible to increase the coverage area of the various sensors and to amplify a signal + to overcome the shadow effects of vegetation or constructions on the panels.
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Company Data (please fill in with the data of the company submitting the video)	
Company Name: Silltec	Country: France
	Founded in (Year): 2013
Address: 4, Rue Rene Razel, Bat. Azur - Hall B, 91400 Saclay, France	Number of Employees: 8
Description of Business Idea, submitted for contest	
What is the need that you are trying to address with your new product/application? From where do you gain this market insight? (Max. 400 characters)	
Silltec is addressing 2 main needs : DLP (Digital Light Processing) sources for additive manufacturing (3D Printing) systems. An environmental friendly laser ablation system for surface cleaning and coating removal. The market insight is obtained through direct exchange with potential end-users.	
What is the novelty of your proposed solution? What are the key differentiators? How does it compare with existing alternatives, if any? (Max. 500 characters)	
Our DLP sources offer very precise, high-resolution images (millions of points) allowing to increase the speed of the process. The laser ablation system allows an efficient, high-speed cleansing of surfaces, while simultaneously reducing tremendously the environmental impact of alternative approaches based on chemical products.	
What photonics technologies have been used to develop the new product/application? (Max. 200 characters)	What clearly-defined benefits will be gained by the customer and/or an end-user by adopting your product/application? (Max. 400 characters)
Both our products integrate LED/laser sources and associated optics.	Both our products are highly efficient and allow our customers to optimise their processes.
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_____ (Date, Signature)	