

Phabulous

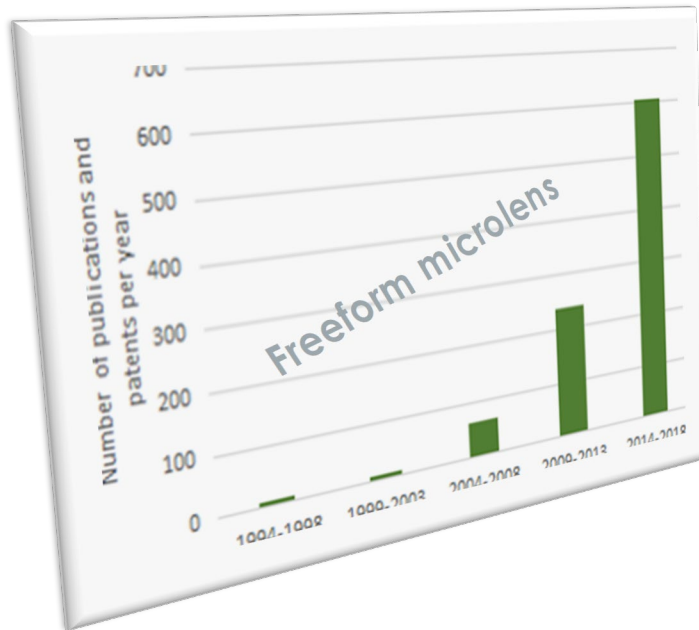
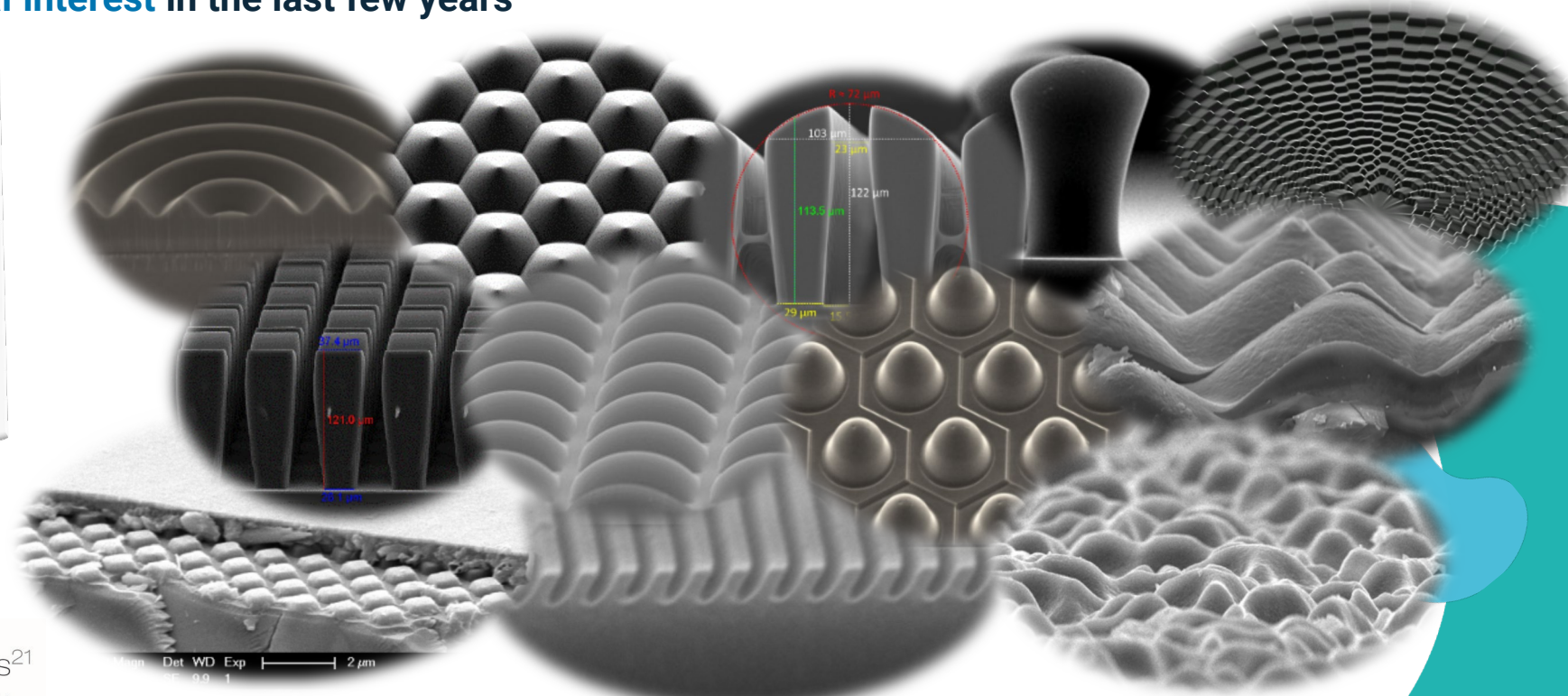
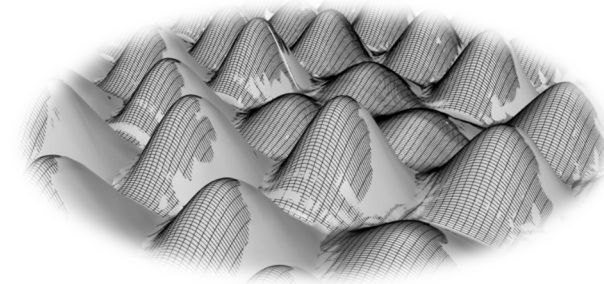
THE EUROPEAN **PILOT LINE** AND ONE-STOP-SHOP
FOR THE MANUFACTURING OF **FREE-FORM MICRO-OPTICS**



Free-form micro-optics (FFMO)

Free-form micro-optics consists of optical components

- with no symmetry constraints
- gaining an increasing industrial interest in the last few years



« PHABULOuS »

... is the European **pilot line** and **one-stop-shop** for the manufacturing of **free-form micro-optics**

... offers

- accelerated innovation & production cycles
- manufacturing services
- prototyping → piloting → large volume production

Watch the **video introducing PHABULOuS and free-form micro-optics** at <https://youtu.be/cZAghW05Fy4>

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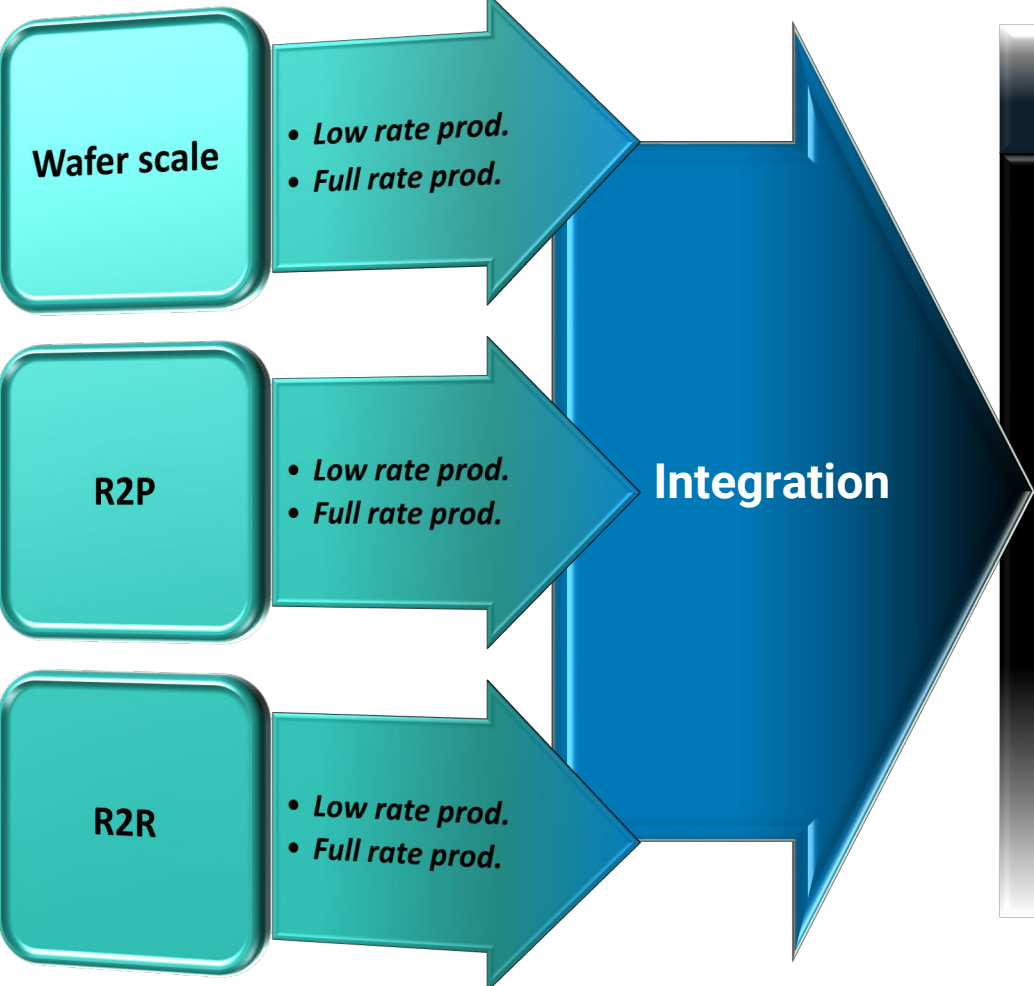


« What »

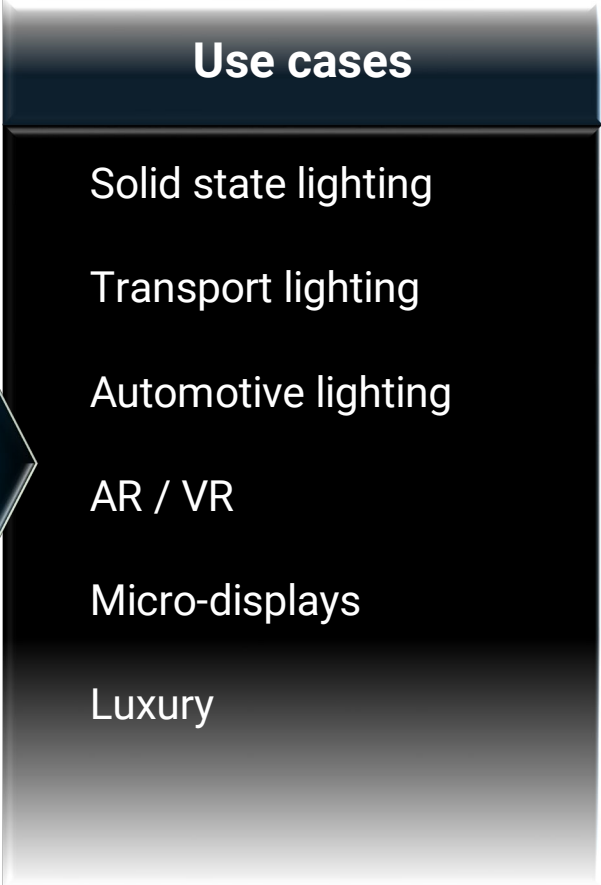
Production Services & UV imprint manufacturing



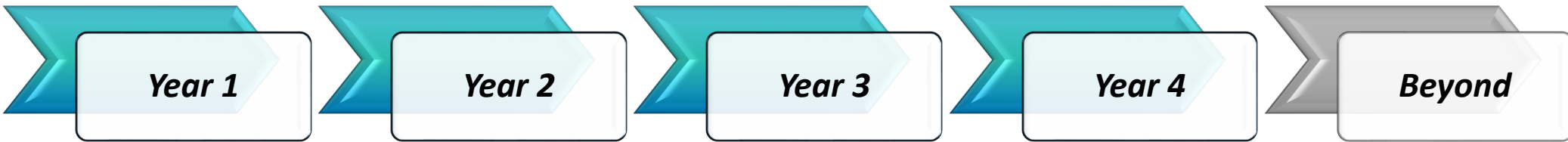
Product integration



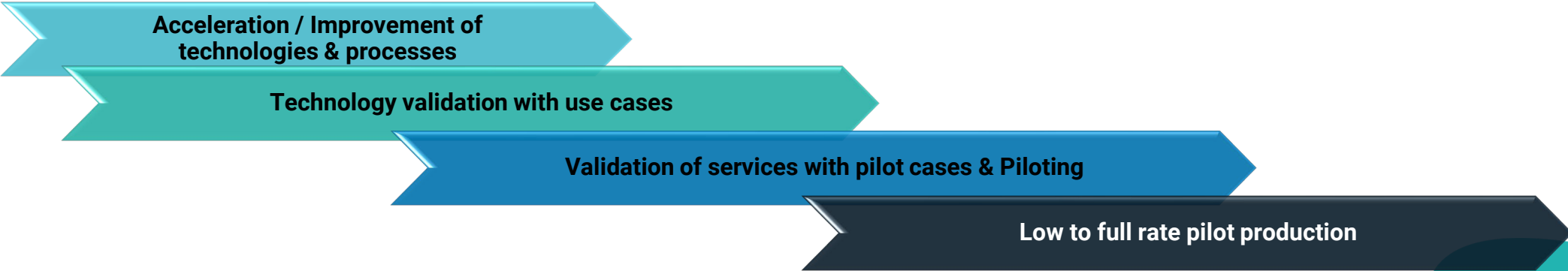
Technology validation



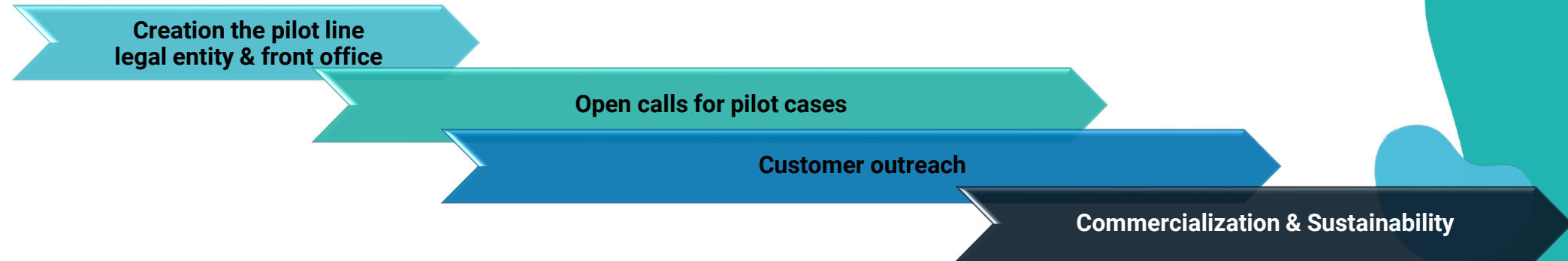
« How »



**Pilot line
Set up**

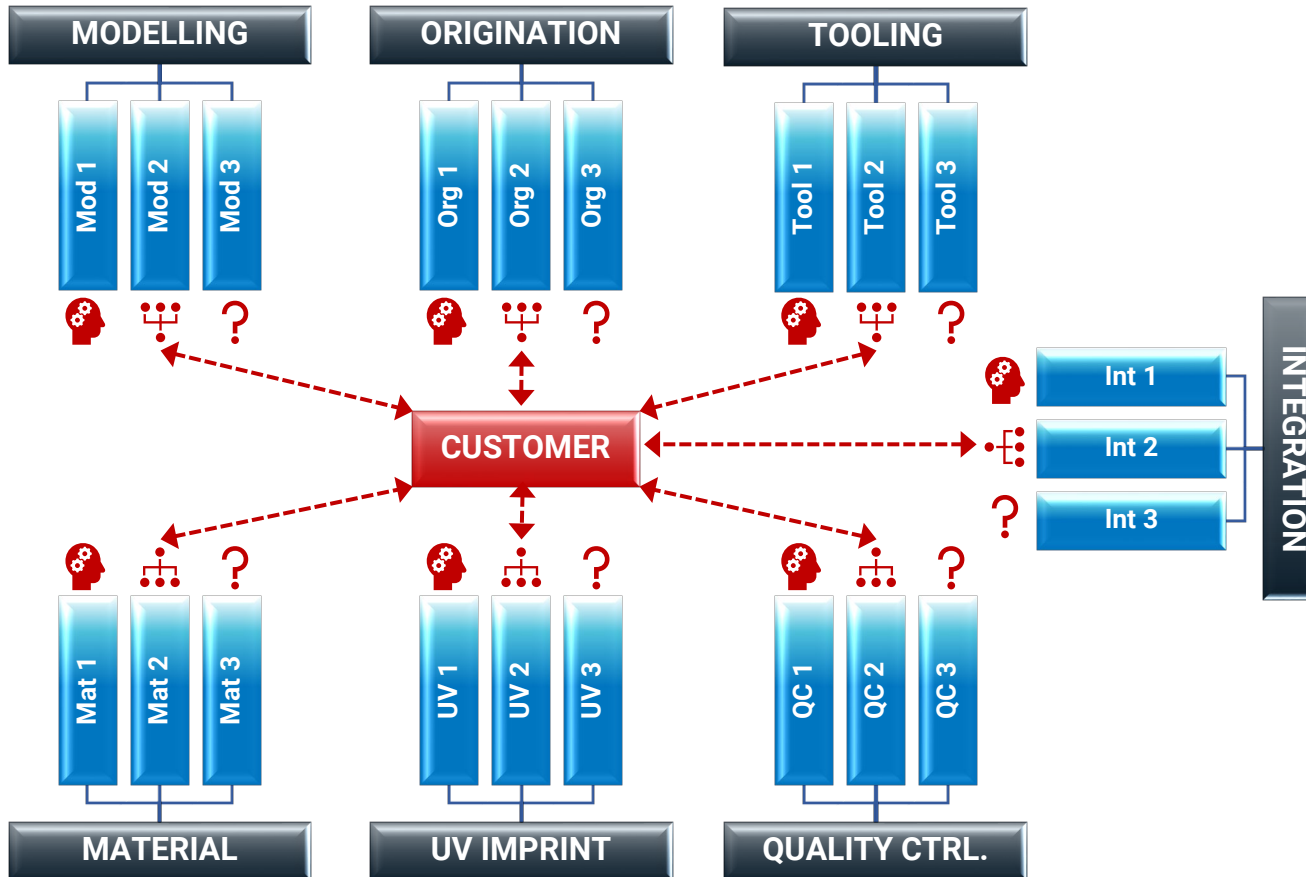


**Pilot line
Management
&
Sustainability**



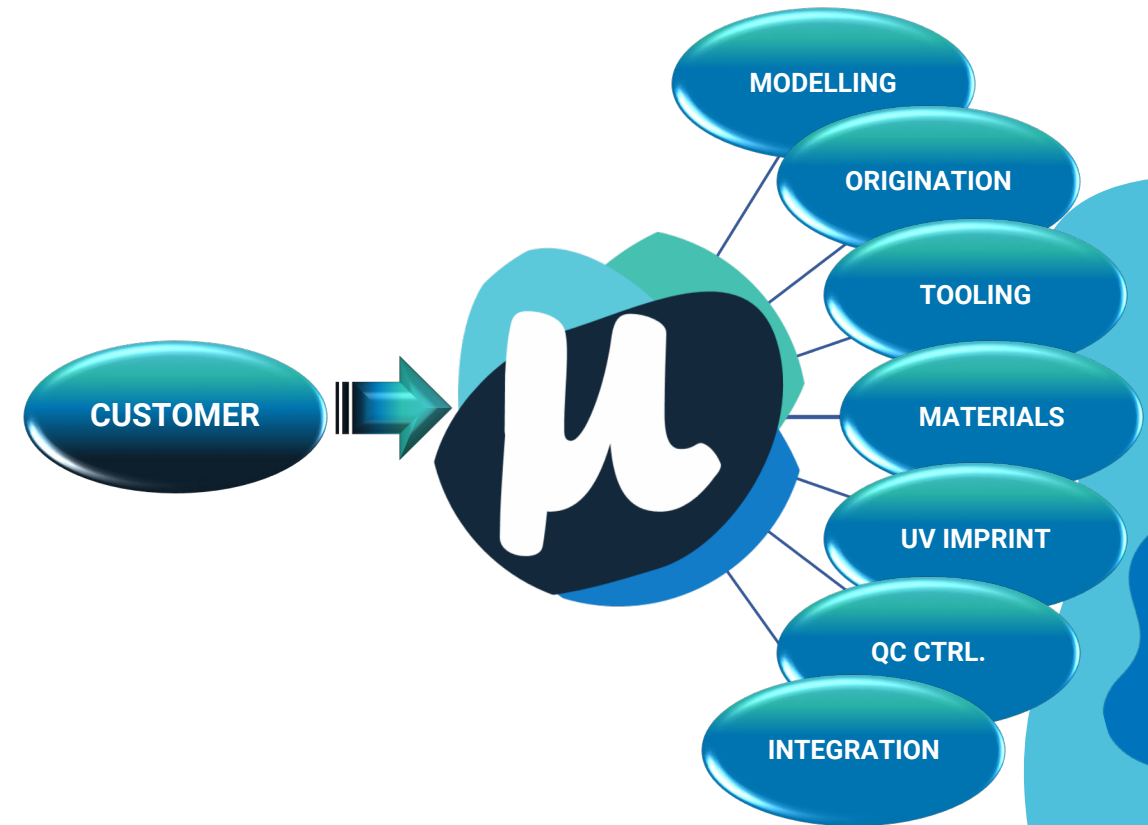
« Why »

Without PHABULOuS



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With PHABULOuS



« Marketplace »

- ... **launched in November 2021**
- ... showcases **extensive product offerings** for free-form micro-optics
- ... is **open to all suppliers and companies** active in the field of micro-optics
- ... aim is to become the **main source for orientation** towards implementation of free-form micro-optics

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Filters

FULLTEXT:

MARKETS

- AR/VR (17)
- Automotive (2)
- Consumer electronics (16)
- Decoration & Luxury (17)
- Healthcare & Life sciences (15)
- Imagers & Displays (24)
- Lighting (25)

OFFERING TYPE ?

- PRODUCT (8)
- PROTOTYPE (4)
- TECHNICAL SERVICE (18)

MANUFACTURING PILLAR

- R2R (20)
- R2P (11)
- Wafer-scale (18)

TECHNOLOGY

- [LAYER DEPOSITION] Other (1)

Listed items: 25

Sort by: AZ - Offering Title

Items/page: 25

Show as: Grid



LENS ARRAYS & LENS ARRAY MASTERS



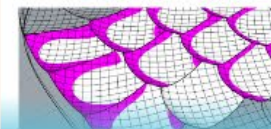
ADVANCED DESIGN OF FREE-FORM OPTICS



ADVANCED LASER ABLATION



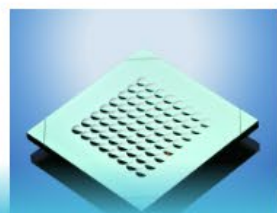
ASPHERICAL MICROLENS AND MLA ON SILICON AND GLASS WAFER



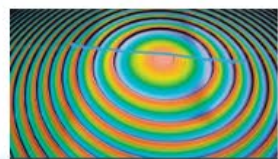
DESIGN & DESIGN FOR MANUFACTURING



DIFFRACTIVE OPTICS (DOES)



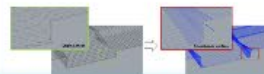
ETCHED MICROLENSSES



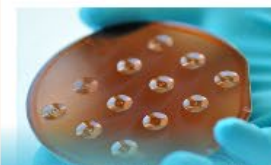
FRESNEL LENS FILMS



HEADLAMPS WITH MICRO-OPTICS



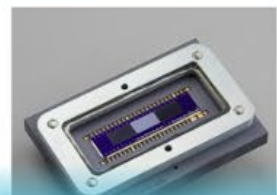
CHARACTERIZATION & QUALITY CONTROL



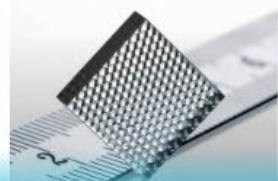
MASK-LESS LASER LITHOGRAPHY



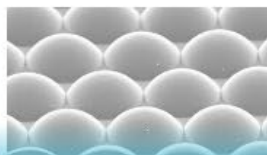
MICRO- AND NANO LASER STRUCTURING



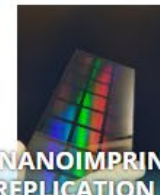
MICRO-LENSES & MICRO-LENS ARRAYS



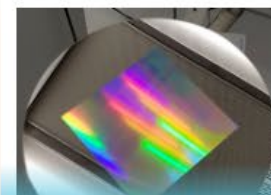
MICROIMPRINT ON WAFER LEVEL



MICROLENS ARRAY FILMS



NANOIMPRINT (REPLICATION OF NANO/MICRON TEXTURES)



NANOIMPRINT AT WAFER-SCALE



ORIGINATION



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FULLTEXT:

ORGANIZATION TYPE ?

- [INDUSTRY] SMEs (0)
- [INDUSTRY] Large Enterprise (3)
- [SERVICES ORGANIZATION] Clusters & Industry Associations (1)
- [RESEARCH] Institute (1)
- [RESEARCH] Research and technology organisations (4)

MAIN VALUE CHAIN POSITION

- Design (1)
- Tools (4)
- Components (9)
- Integration (1)
- Other (3)

COUNTRY

- Austria (1)
- Belgium (2)
- Czechia (1)
- Finland (2)
- France (2)

Listed items: 18 Sort by: AZ - Organization name Items/page: 25 Show as: Grid

 SUSS MICROOPTICS	 AMIRES S.R.O.	 AXETRIS AG	 CEA	 CSEM SA	 EPIC - EUROPEAN PHOTONICS INDUSTRY CONSORTIUM
 FEMTOPRINT	 FRAUNHOFER FEP	 HELLA GMBH & CO. KGAA	 JOANNEUM RESEARCH FORSCHUNGSGESellschaft MBH	 LASEA	 LIMBAK
 MORPHOTONICS B.V.	 NANOCOMP OY LTD	 POWERPHOTONIC LTD	 STANDEX INTERNATIONAL	 VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD	 WIELANDTS UPMT

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Pilot-line providing highly advanced & robust manufacturing technology for optical free-form micro-structures

PROJECT ▾ PILOT LINE OPEN CALL **MARKETPLACE** NEWS & EVENTS ▾ DOWNLOADS CONTACT US

PHABULOμS is the European **one-stop shop** for the manufacturing of **free-form micro-optics** offering **accelerated innovation & production cycles** from prototypes to piloting and large volume production



Technical Marketplace

Organization registry



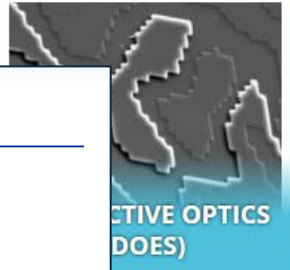
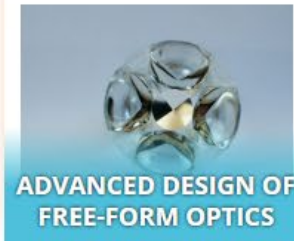
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Listed items: 25 Sort by: AZ - Offering Title Items/page: 25 Show as: Grid



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FORGOTTEN PASSWORD

« Open Call »

- ... launch will be 24 January 2022
- ... information is already available
- ... is open to all European companies (small and big)
- ... continuous open call with cut-off dates:
 - end of March, June, November 2022
 - end of March, June, November 2023

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« For whom »

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MICRO-OPTICS IS...

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Questions? Contact me!

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www.phabulous.eu



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PHOTONICS²¹

PHOTONICS PUBLIC PRIVATE PARTNERSHIP