asphericon

Beam shaping for extra-long working distances

The Power of #BeamTuning

Alex Ponomarew
Sales Executive

asphericon BeamTuning

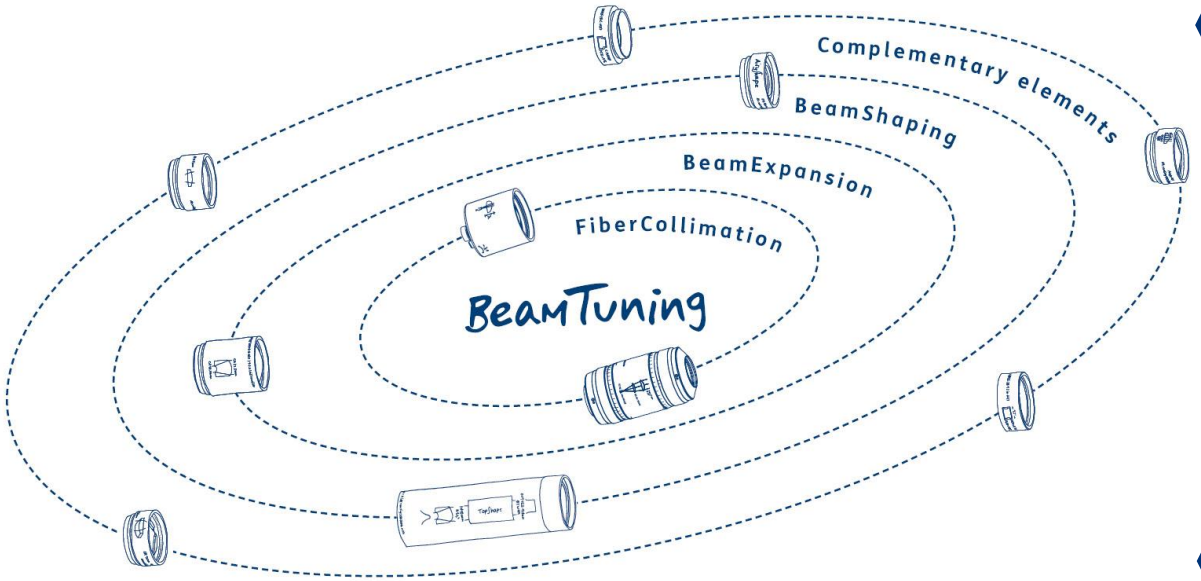
BEAM TU·NING [biːm ‘tjuːniŋ] – TO ADJUST SOMETHING FOR MAXIMUM USABILITY AND PERFORMANCE

BeamExpansion

World‘s first aspheric
beam expansion system

BeamShaping

Innovative beam shaper



FiberCoupling

FiberCollimation,
Fiber Coupling

Complements

Adapters, MountedOptics
Opto-Mechanicals

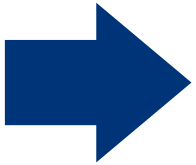
Challenges BeamShaping

HOW DO WE TAKE BEAMSHAPING TO THE NEXT LEVEL?

Frequent error rate

Alignment

Complexity of other systems



Anyone can handle it, no need to be a physicist.

No alignment required.

Highest quality (diffraction-limited, no wavefront error)

a|TopShape LD & LDX

OVERVIEW

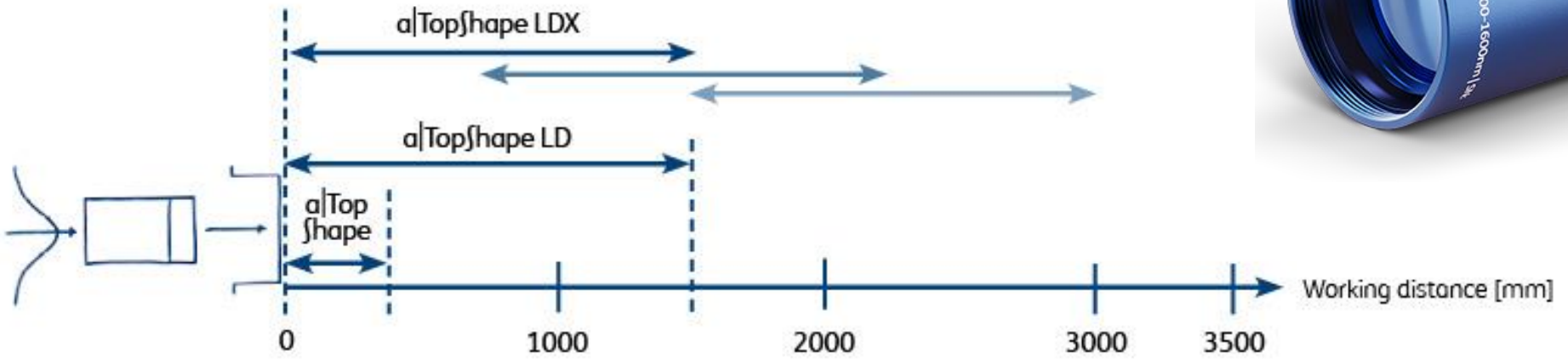
= Large spectral range (320 – 1600 nm)
  – Design wavelengths: 355, 405, 532, 632, 780, 1064 nm

= Propagation depth (with beam uniformity < 0.1):
  – TopShape LD: 1.5 m
  – TopShape LDX: min. 1.5 m (shiftable!)

= Input / Output beam diameter:
  – TopShape LD: 10 mm / 15.2 – 15.7 mm
  – TopShape LDX: 10 10.4 mm / 15.2 – 15.7 mm

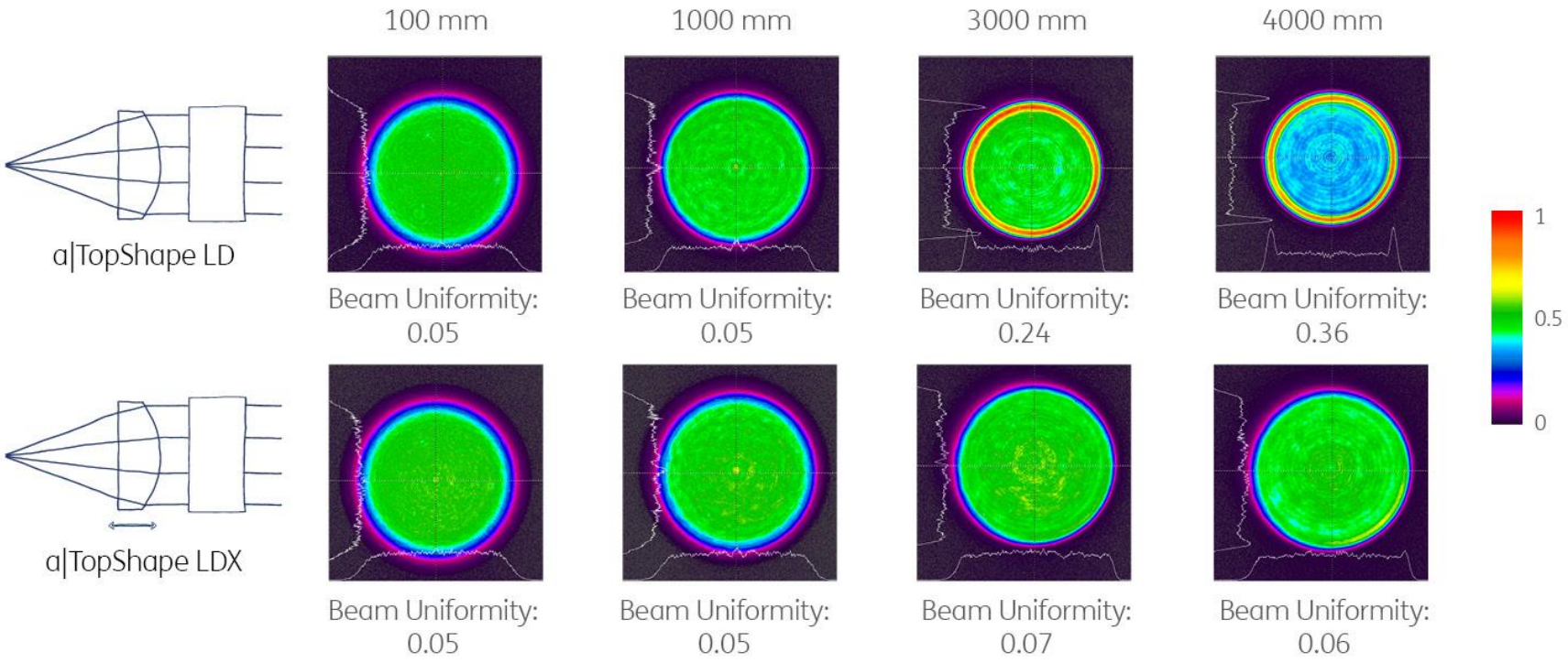
a|TopShape LD & LDX

HOMOGENEOUS INTENSITY DISTRIBUTIONS ESP. AT LARGER DISTANCES



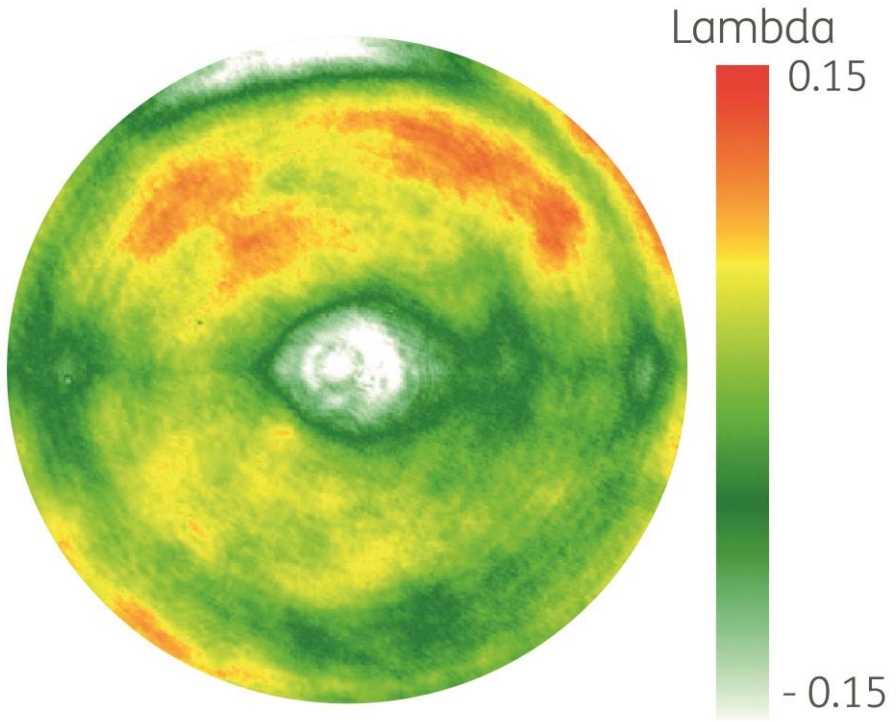
a|TopShape LD & LDX

HOMOGENEOUS INTENSITY DISTRIBUTIONS ESP. AT LARGER DISTANCES



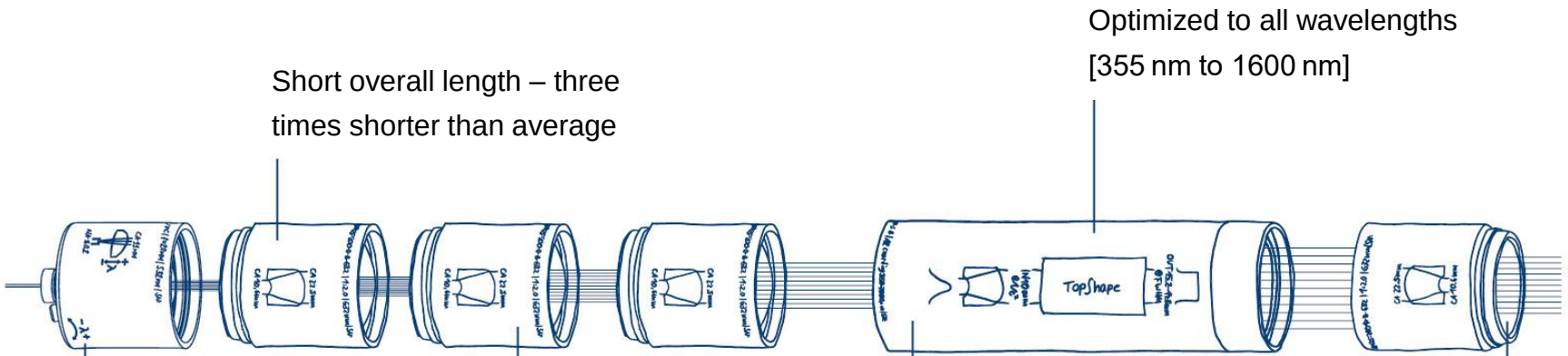
a|TopShape LD & LDX

PERFORMANCE – BEAM UNIFORMITY UP TO 0.05



asphericon BeamTuning

FROM THE FIRST ASPHERIC BEAMEXPANDER TO A UNIQUE SYSTEM



Are you up for the challenge?

CHALLENGE ME!

Alex Ponomarew

SALES EXECUTIVE BEAMTUNING

a.ponomarew@asphericon.com