



Guido Groet

Chief Strategy officer

February 2nd 2021

**Prescription Smart Glasses, where
Medical Devices and Smart Tech converge**





**Currently the only
technology to 3D
print lenses**



Luxexcel®

3D printed lenses

The only technology to print lenses, add prescription and integrate Smarts



Disruption

From integrating lenses into Smarts to *integrating Smarts into prescription lenses*



Vision

Transforming people's lives *by integrating Smart functions in 3D printed lenses*



Mission

Help our customers become more successful through digital customization

Company

- Founded in 2009
- 30 employees
- Offices in NL, BE & US

History

- Prototyping Services
2009-2016
- Focus on Traditional Eyewear
2017-2019
- Expand in Smart-Eyewear
2020 >

IP Portfolio

- 32 patent families
- EU, US and WW coverage
- Core IP to print quality lenses

Technology

- Jetting technology
- High transparency material
- No 3D post-process required
- Printing end-use lens (ISO, ANSI)

Products

- 3D Printers
- 3D Consumable / Inks
- 3D Software

Lens Portfolio

- Mainstream lenses
 - Single & Multi vision
- Low vision aids
 - Prisms, High power
- High-Tech
 - VR, AR, Projections

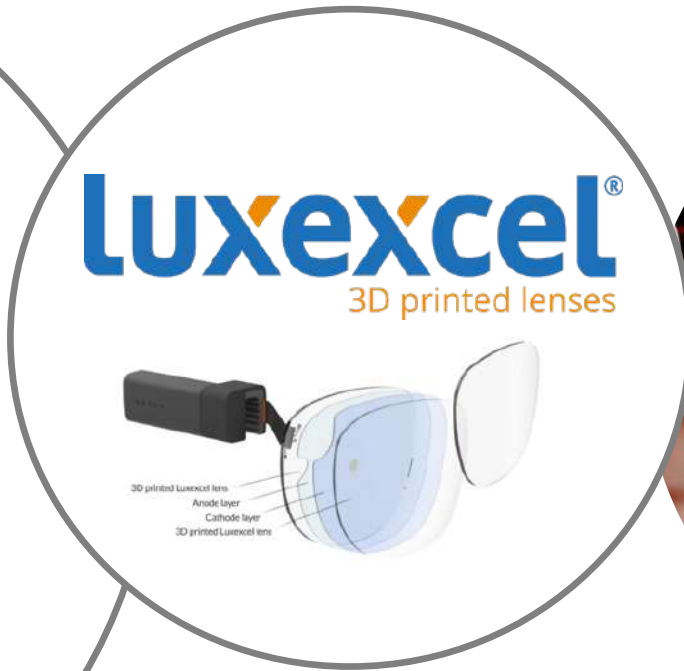
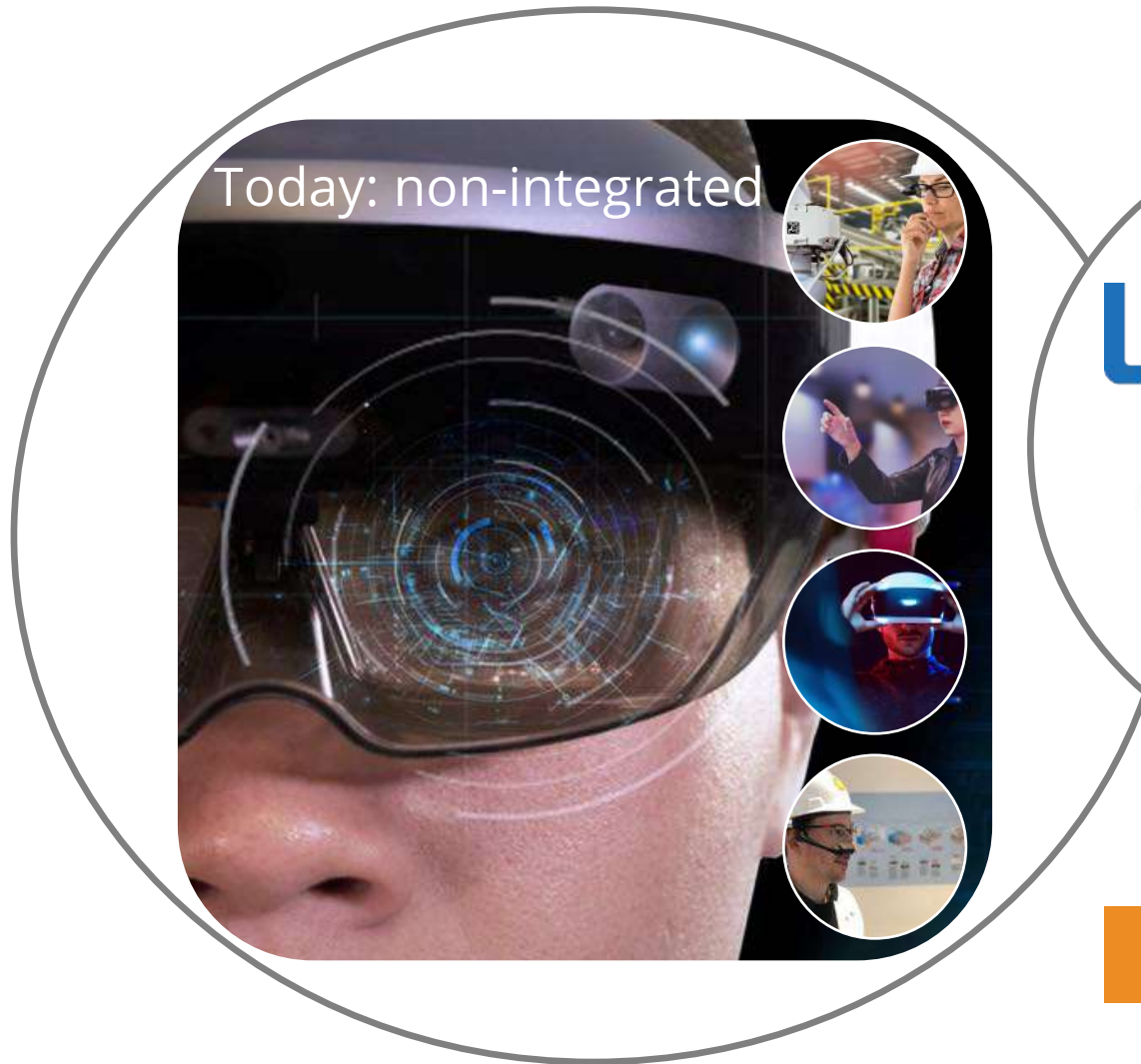
Markets

- Traditional Eyewear
- Feature Eyewear
- Smart Eyewear

Customers

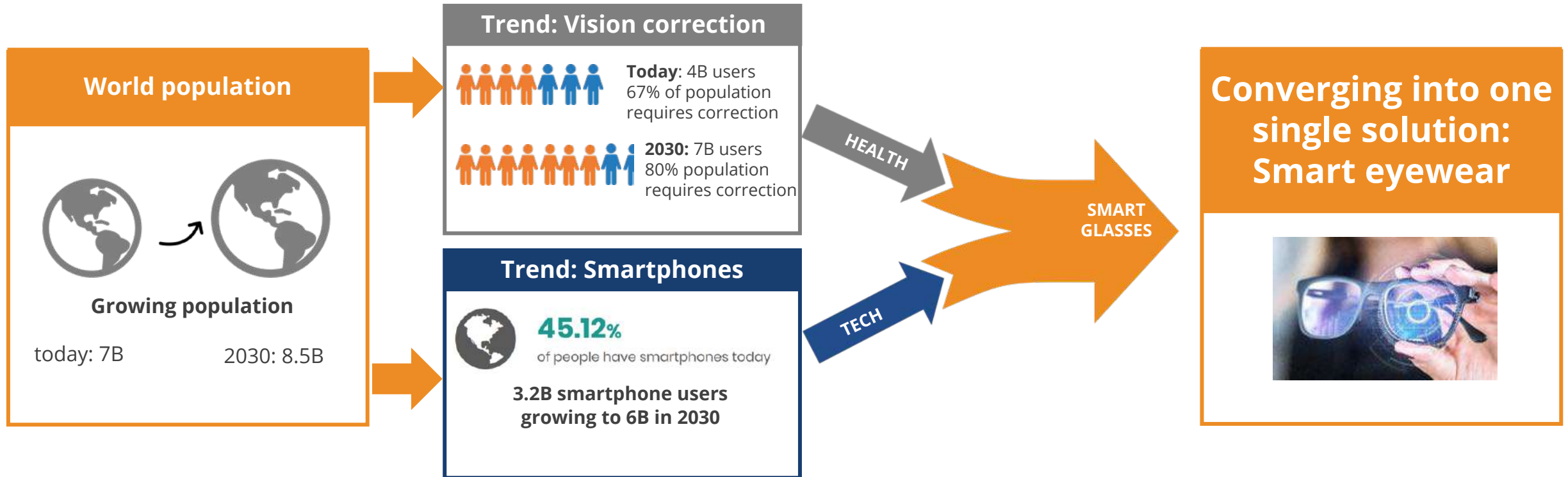
- Lens manufacturers
- Technology companies introducing Smarts functions

Converging of smart and prescription



Smart-eyewear for everyday

Convergence of healthcare and smart



Smart eyewear requires prescription

Solving manufacturing and Smart integration

The problem



Smart-eyewear

requires products looking like traditional eyewear

The solution

Luxexcel 3D Printing

enables seamless integration of smart technology into lenses



Lens manufacturing requires complex processes



Current manufacturing process

Luxexcel manufacturing platform replaces 30+ process steps

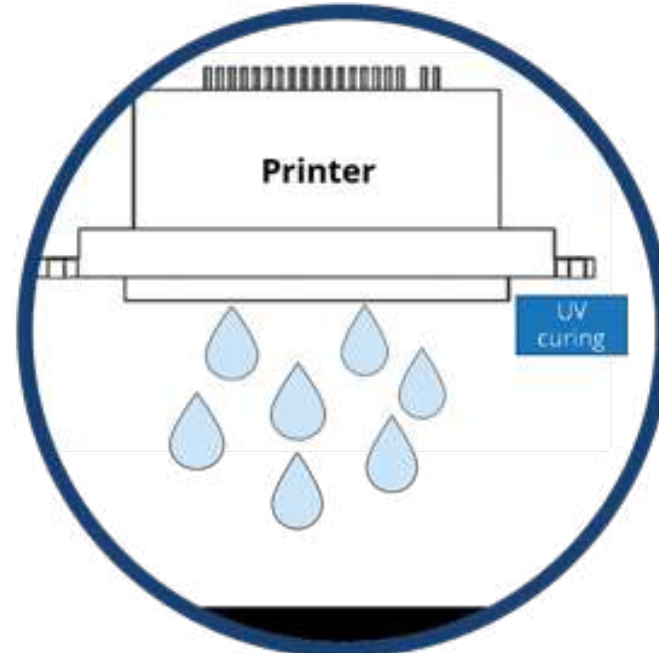


Enabling smart-eyewear with a simplified manufacturing process

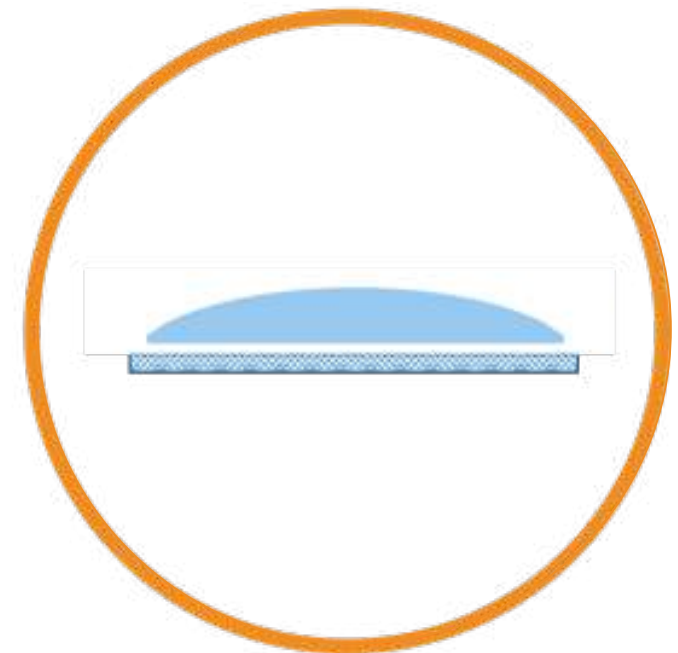
How do you 3D print a lens?



Start with a bottle of ink



Micro droplets are jetted in an exact position



3D printed lens

Transparent, no polishing, ophthalmic quality

Why 3D print lenses?

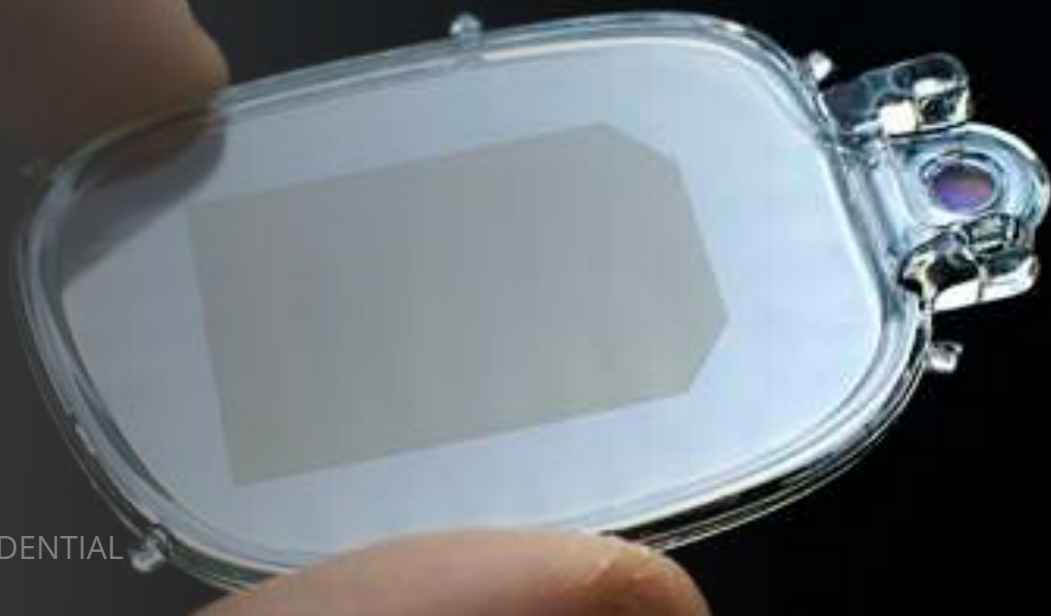


- ✓ Efficiency, replacing 30+ process steps, shorten supply chain
- ✓ Customization of products
- ✓ Reduce waste by 90%+
- ✓ Enable prescription smart eyewear

Waveguide integrated in prescription lens

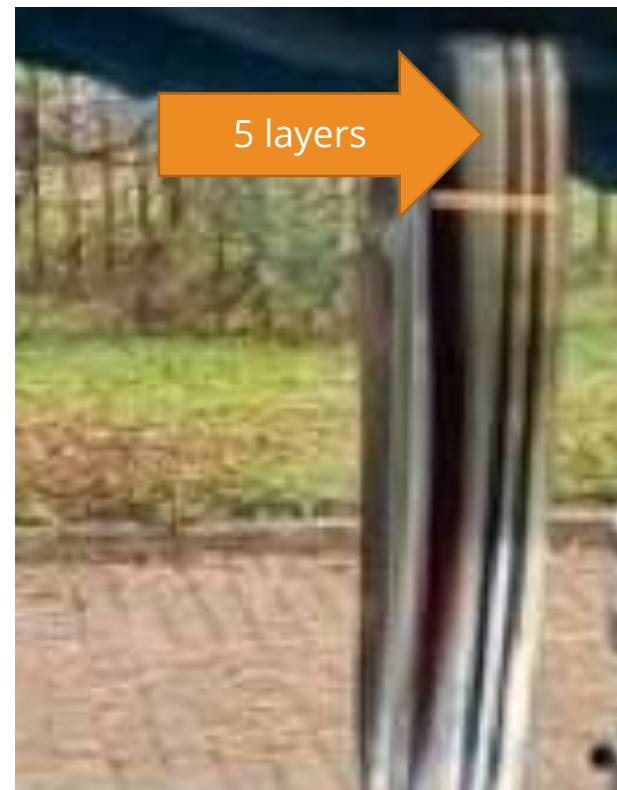
Luxexcel[®]
3D printed lenses

CONFIDENTIAL



Embedding films in prescription lenses

- Any film can be integrated:
 - Holographic
 - Polarizing
 - Color
 - Prescription power
 - Medical applications
- Film layers are protected by the lens



luxexcel[®]
3D printed lenses



Embedded active film with prescription lens power

Example of electrically switching sunglasses

Prescription lens with smart: here today



Summary: 3D printed prescription lenses

Turnkey technology solution

Hardware, software, process and consumables



Certified Ophthalmic Quality

Prescription lenses can be worn straight from the printer, no post-processing



The only solution to

3D Print lenses
Add Prescription
Integrate Smarts

Volume manufacturing

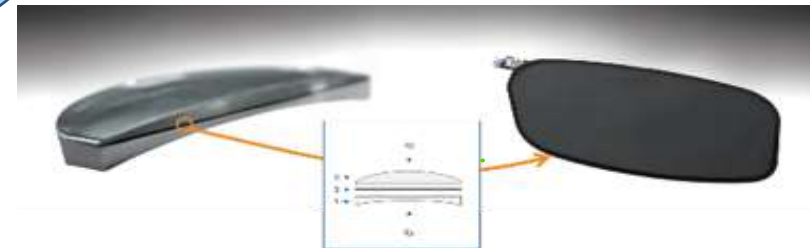
Commercial lenses are 3D printed every day in a simplified way compared to



pictures courtesy of IFB solutions

Integration of smarts

The integration of active or function foils during 3D printing of lens



Proven technology for smart prescription eyewear