Delivering sustainable growth by focus on selected application segments and developing metrology as new powerful growth driver

Stefan Moll, November 2015
We enable customers to optimize yield and produce safe, resource-optimized products.

3D is more and more disrupting industrial manufacturing and design processes.
Mastering automated X-ray imaging and exploring metrology as new application …

… based on the trends and 3D opportunities our target is 40 to 50 CHFm additional sales until 2020
Growth with Metrology: Proven accuracy is key in all core applications …

3D CT in NDT
- Image of object
- Inner properties

Proven accuracy
- External dimensional attributes
- Knowledge of accuracy of values

Application
- Aerospace
- Foundries
- Lab, R&D
- Wheel
- Tire
- Elektronics

X-ray imaging chain
3D CT technology
Usability
Proven accuracy
World Wide Service
Proven accuracy is also key to open up new business applications in the metrology market.
Metrology: Addressing an additional market
It’s not only what’s inside that counts

Industrial measuring of outside dimensions is a huge market:

- Automotive: 950M$ (’13)
- Aerospace: ~500M$ (’13)
- Services: 720M$ (’13)
- Medical
- Industrial

Challenges for traditional measurement:

- Cannot measure complex external structures e.g. from 3D printers
- Time consuming setup procedure
- Few test points, individually defined
- Adds measurement effort & investment

based on Frost & Sullivan and Transparency Market Research
Computer Tomography is ideal for addressing the needs of metrology customers

- CT not limited by complexity (but size)
- CT scan includes the complete object
- CT scan data is stored, so measurement can be done in the future
  ⇒ CT is ideally positioned to address this huge market opportunity

**Metrology**

- Complex internal cooling channels in 3D printed turbine blade
- Hole locations at defined cross-section of CT scan data
- Roundness inspection & measurement of hole at defined cross section of CT
Partnering with Hexagon allows to combine strengths of two leading to create competitive advantage
Unique customer benefit through combination of strengths of YXLON and Hexagon

One + One is more than Two: The ultimate 3D measurement device
- Full integration of workflow from CT to measuring
- No additional tools, staying in established Quindos environment
- Highest measurement precision through joint development

![YXLON](image)

![Hexagon](image)
Growth by tapping into the large metrology market and creating new opportunities

- CT systems for measuring complex parts, not measurable with CMM
- CT system substituting CMM for more flexibility
- CT Systems that also can measure

Non Destructive Testing | Inspection type | Metrology
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Current | New | Objects

Metrology
Growth by tapping into the large metrology market and creating new opportunities

- **2016**: Success through best image
- **2018**: Success through improved measuring accuracy, workflow & Hexagon software
- **2020**: Success through best accuracy in growing market substituting CMMs
Two initiatives for profitable growth

By mastering automated X-ray imaging and metrology and exploring metrology as new application our target is 40 to 50 CHFm additional sales until 2020.