



Light. Insight. Life.



## Volpi helps Qiagen quickly turn an acquisition into QIAcuity

### CASE STUDY

**Client:**  
Qiagen

**Website:**  
[www.qiagen.com](http://www.qiagen.com)

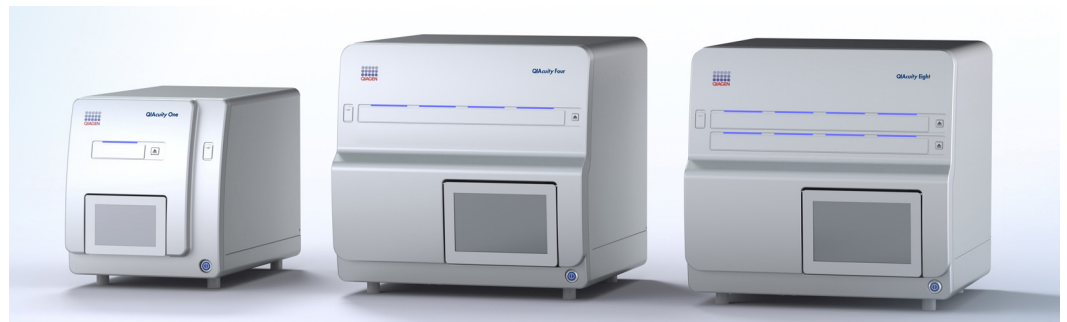
**Industry:**  
IVD

**Solution/Application:**  
dPCR

### Overview

QIAGEN acquired the digital PCR technology including a prototype instrument from Formulatrix (Boston MA) with the intention to develop an instrument family containing the following configurations:

- Single plate instrument
- 4-plate instrument
- 8-plate instrument



QIAGEN selected Zollner Elektronik as the instrument development and manufacturing partner.

In parallel, QIAGEN asked Volpi to support both it and Zollner with the qualification, development and manufacturing of the imaging module for optimal optical performance on a very challenging timeline from project start to series manufacturing.

### Approach

Volpi was charged with four tasks within the target timeline:

#### **Assessment of current design**

Our first task was to assess the acquired design to determine how close or how far away the existing design was for meeting Qiagen's stated performance objectives.

#### **Design optimization**

Volpi determined that design iterations were required and produced two rounds of design enhancements of its own.

#### **Prototyping**

Following an exhaustive internal quality review of the design, Volpi then developed 100 prototype modules for rigorous evaluation by both Qiagen and Zollner.



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## About Volpi

We improve patient's lives through light-created insights. Volpi helps healthcare professionals make more informed treatment decisions by delivering innovative optoelectronic solutions that enhance the performance of the diagnostic instruments used to research and diagnose disease.

With offices in the US and Switzerland, and clients around the globe, Volpi works with the world's best-known and most respected Life Sciences and Diagnostics instrument manufacturers.

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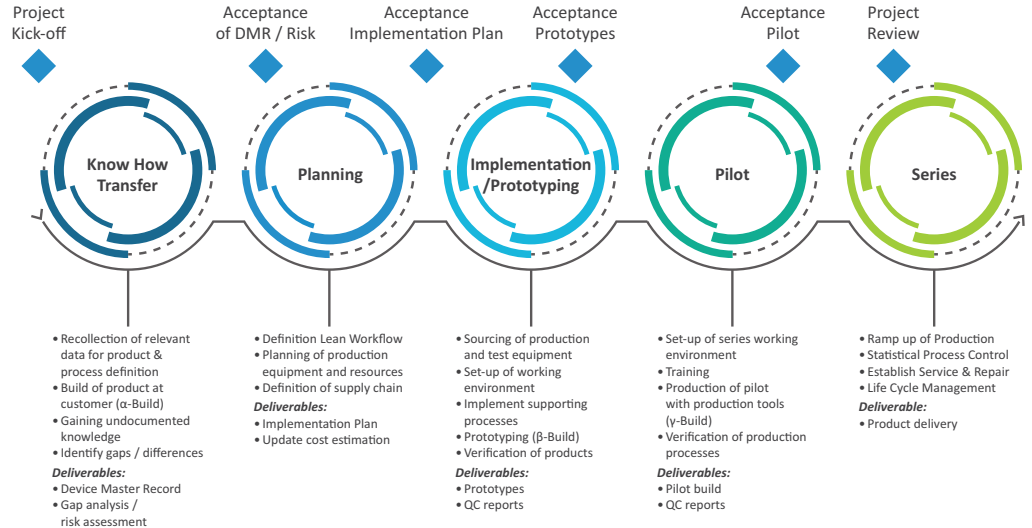
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## Approach (Continued)

### Design Transfer and Manufacturing

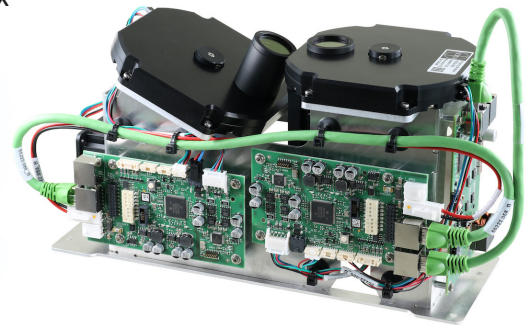
Following prototype approval, Volpi then used its proven Design Transfer process to ensure that the optical modules could be manufactured at the highest performance at its targeted cost and within the required timeframe.



## Results

In just 18 months Volpi turned an acquired optical technology design into the launch of a highly successful instrument, including:

- Series manufacturing of a 5-plex optical module for digital PCR
- The same module goes in all 3 instrument configurations



*Volpi's ability to take a technology we acquired and assess, design, prototype and manufacture an optical module that performs at the highest level across three of our instruments in so short a time was vital to the successful launch of the QIAcuity line.*

Thierry Bernard, Qiagen CEO