



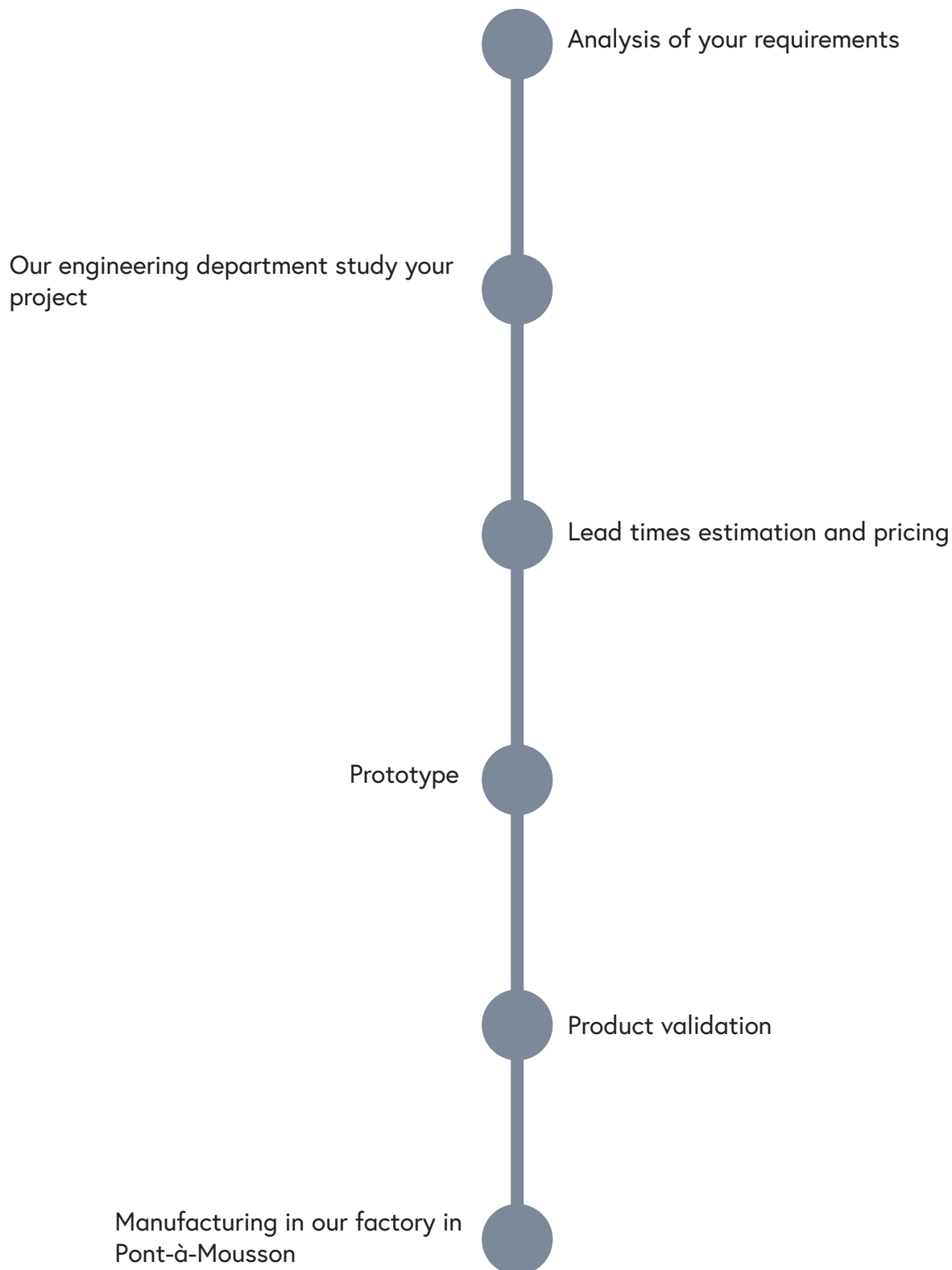
**DR. FISCHER**  
Group

# Retrofit LED: railway application

100% retrofit LED solution

DR. FISCHER Group has a know-how and expertise in the field of Railway LED applications. We take care of your project from design to production according to your specifications

### Our custom solution



Pont à Mousson's factory has a certified lighting laboratory. This allows us to design, manufacture and guarantee LED lamps.

CAD

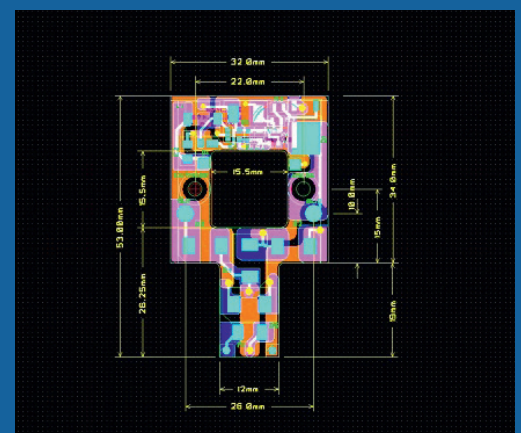
Rhinoceros & DidLux : these softwares are for preliminary study of solutions  
NX Unigraphics et Autodesk Inventor: mechanical design  
Cadstar : electronic boards design

## Physical measurements

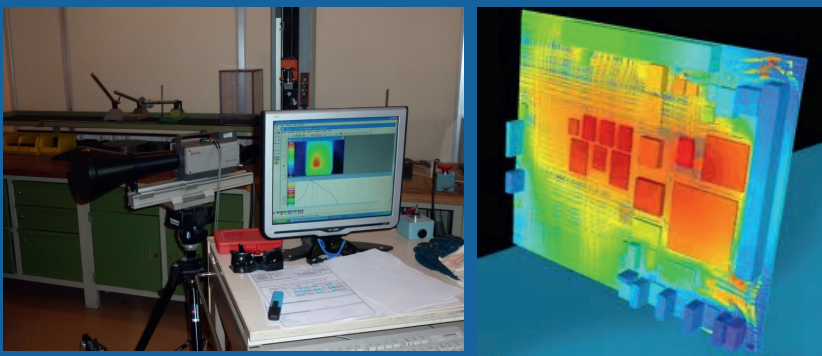
- Integrating Spheres : Measuring both luminous flux and color temperature
- Spectrocolorimeter
- Goniometer
- Infrared camera for thermal measurements
- Tridimensional measurement machine



## Integrating Spheres



## Electronic boards design



## Thermal measurements



Old generation lamp  
(incandescence technology)



New generation lamp  
(LED technology)



DR. FISCHER is the leader in Europe for railway lamps.







Sales of special lighting

LED luminaires

Halogen lamps for medical use

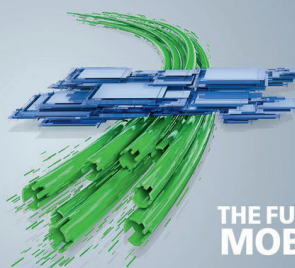
DR. FISCHER Europe will be at InnoTrans 2018, the biggest trade fair in the railway industry.



**InnoTrans 2018**

18-21 SEPTEMBER · BERLIN

International Trade Fair for Transport Technology  
Innovative Components · Vehicles · Systems  
[innotrans.com](http://innotrans.com)



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MOBILITY**