



# 1st French-German Workshop on High Energy Laser Terminal Effects

April 11 and 12, 2018

## Call for Papers

Directed High Energy Laser (HEL) Weapons have already been demonstrated on the field in various configurations and scenarios. Their maturity allows for short-terms breakthrough capabilities on the battlefield. HEL weapons relies on the absorption of the electromagnetic laser beam, at infrared wavelengths, leading to a thermal-induced mechanical weaknesses, and finally, mission failure of the target.

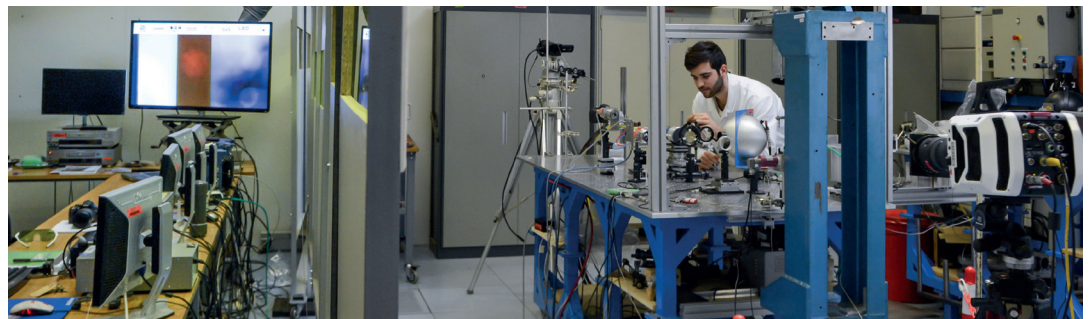
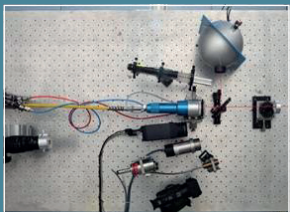
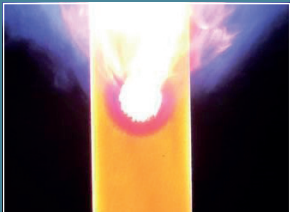
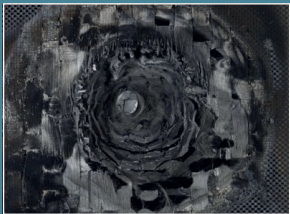
Several key questions are of prime relevance on the HEL terminal ballistic effects:

- Beam energy absorption in heterogeneous structures
- Thermo-mechanical degradation kinetics
- Vulnerability criterions
- Beam quality discrepancy in diffusing and absorbing atmosphere
- Laser safety legal and collateral issues

This workshop shall bring together researchers, operational staff, governmental representatives and industrial experts from France and Germany. It will enable the sharing of current information and we hope that it will facilitate setting up a binational excellence networking community.

Papers are solicited in the following topics:

- Laser matter interaction, including dedicated metrology
- Beam propagation in the atmosphere,
- HEL safety issues,
- Military and homeland security doctrines.



**Date:** April 11 and 12, 2018

**Location:** French-German Research Institute of Saint-Louis – ISL  
5 rue du Général Cassagnou – BP 70034  
68301 SAINT-LOUIS Cedex – France

You are kindly invited to submit your title, authors and summary before March 1, 2018 by Internet.

<http://www.isl.eu/call-for-paper-helte-2018>

**Abstract submission deadline – single page, including pictures: March 1, 2018**

**Full paper submission deadline – 4-8 pages: March 1, 2018**

**All participants (even authors) must register by using the online registration form.**

<http://www.isl.eu/registration-helte-2018>

**Registrations closes: March 25, 2018**

**Registration fees: 75 €,** including lunches on April 11-12 and dinner on April 11.

**Scientific committee:** ♦ Lionel MERLAT, Rüdiger SCHMITT

**Contact:** ♦ Communication Unit ISL

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# ISL – Leading-edge research in defence and security in the heart of Europe

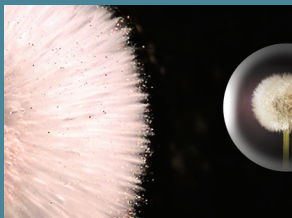
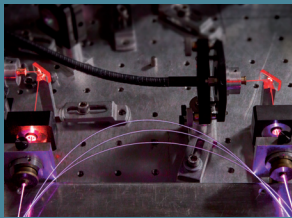
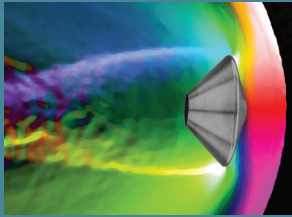


The **French-German Research Institute of Saint-Louis (ISL)** situated in the border triangle of Germany, France and Switzerland is an internationally renowned research institute belonging to a global industrial and economic network.

The spectrum of our core activities comprises a variety of topics: **aerodynamics, energetic and advanced materials, lasers and electromagnetic technologies, protection, security and situational awareness.**

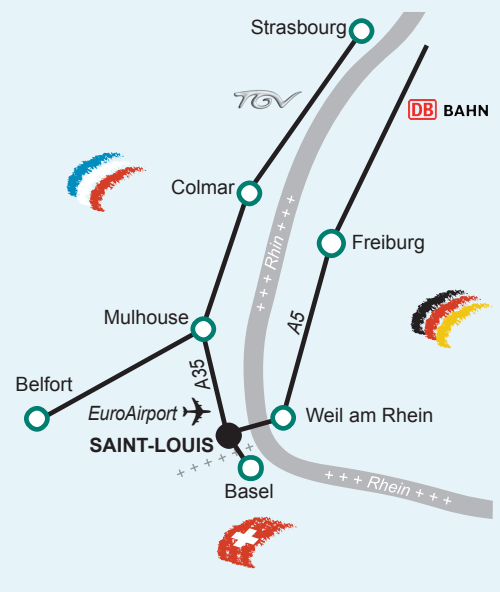
Our activities are related to both **basic and applied research.**

ISL has reinforced its activities on issues of **civil security** and **countermeasures against terrorism** encountered both at home and during overseas military operations.



## French-German Research Institute of Saint-Louis - ISL

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## Requirements

Please note that access to ISL can only be granted upon former registration.

When visiting ISL please be sure to have the following papers with you:

- **Identity Card** (ID-card or passport) for visitors coming from member states of the European Union.
- **Passport** for visitors coming from countries which are not members of the European Union.

## How to get to ISL

### By airplane

ISL is situated at about 10 kms of distance from the international EuroAirport Basel-Mulhouse. There are taxis at the exit. Please take the exit FRANCE-GERMANY (not the exit to Switzerland). There is a shuttle bus every 30 minutes to Saint-Louis Train station which is at 10 minutes walking distance from ISL.

### By train

The train station Saint-Louis is at about 10 minutes walking distance to ISL. There are TGV connection from Paris to Basel and Mulhouse, Domestic train from Strasbourg and Mulhouse to Saint-Louis. Coming from Germany, there are ICE-connections to Basel Badischer Bahnhof. A taxi will take you in 15 minutes to ISL. In Basel SBB – there are train connections to Saint-Louis.

### By car

In Germany: Autobahn A5 Freiburg-Basel, last exit before the Swiss border - Weil am Rhein, Hünningen; direction France- Hünningen/Saint Louis.

In France: Autoroute A35 Mulhouse-Basel, exit Saint-Louis

N.B. Certain navigation systems do not recognise "Rue du Général Cassagnou"; in that case, use "Rue des Fleurs" as street name.

## Accommodation

A list of hotels situated near ISL is available on our website. You can benefit from preferential ISL-rates for some of those hotels.