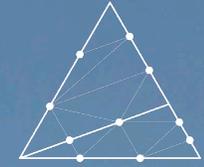


IMPETUS User Meeting ID2.5

Wednesday 26 June 2019

Flekkefjord, Norway



IMPETUS

driving precision



IMPETUS User Meeting 26 June 2019 (ID2.5)

Accurate and robust simulations of impact, blast and terminal ballistics require proper knowledge.

Both pre-calibrated material models and validated models of threats reduce risks of errors in the model set-up. Having such knowledge stored in a system, accessible to many users, can make the engineering process highly efficient and user-friendly. However, protection of valuable data is crucial for all interacting parties.

This meeting will focus on how the IMPETUS platform can help users collaborate and exchange data in a secure and flexible manner. We also want to raise the question and discuss how the platform can be improved.

IMPETUS will demonstrate new advanced material models for terminal ballistics and how the calibrated material data can be protected and licensed by users within the IMPETUS community.

The meeting is an opportunity to bring together IMPETUS users having expertise on material testing and material calibration, test laboratories, research organizations, universities, agencies, consulting companies, suppliers and OEMs within the defense market.



Tuesday 25 June 2019

Arrival

Wednesday 26 June 2019

08:00 Registration & coffee

08:30 **Welcome and today's agenda**
A. G. Hanssen (IMPETUS Afea)

09:00 **Use of templates, material objects and object library in IMPETUS**
H. Vistnes, L. Olovsson, A. G. Hanssen (IMPETUS Afea)

10:00 Coffee break

10:20 **Material testing and calibration of high-strength steels for terminal ballistic - Roadmap for material objects**
N. Herzig (Nordmetall GmbH, Neukirchen-Adorf, Germany)

10:50 **A new material model for high strength steel for terminal ballistic applications**
L. Olovsson (IMPETUS Afea)

11:20 **Fragmentation using new nodesplit algorithm**
G. Ødegårdstuen (Nammo, Raufoss, Norway), J. -F Moxnes (FFI, Norw. Defence Research Est., Kjeller, Norway), L. Olovsson (IMPETUS Afea)

11:50 Photo session & lunch

13:00 **Blast simulations at AUDI AG – what do we need for the future?**
P. Daniel, P. Haffner (AUDI AG, Ingolstadt/Neckarsulm, Germany)

13:30 **Fully integrated blast simulations – from IED to response of HIII**
G. Quiriconi, A. Grimaldi, S. Candiotta (IVECO Defence Vehicles, Bolzano, Italy)

14:00 **Buried mine on vehicle target: a comparison between numerical methods**
D. Lebaillif, A. Bufalo (Nexter Systems, Bourges, France)

Wednesday 26 June 2019, cont'd

14:30 Coffee break

14:50 **Response of blast loaded laminated glass – testing and simulations**
T. Grue, P. T. Ingier (Norwegian Defence Estates Agency, Oslo, Norway)

15:20 **Using IMPETUS for Shock Physics studies: Applications to concrete perforation, High-G acceleration and Hypervelocity impacts**
P. Hereil (THIOT Ingenierie, Puybrun, France)

15:50 **OS P4D – a template based on IMPETUS for structural capacity of Mekano® systems**
M. K. Halvorsen (HILTI - Øglænd System, Klepp, Norway)

16:10 **Importance of predicting the correct deformation modes in FE simulations**
T. Tryland (Sintef Manufacturing, Raufoss, Norway)

16:30 **Closing and wrap up**
A. G. Hanssen (IMPETUS Afea)

18:00 Social programme and dinner – meet at quay for boat trip

Thursday 27 June 2019

Separate meetings/Leave for home

Preliminary Agenda

Location

SPIRA Kultursenter, Elvegaten 1, N-4400 Flekkefjord, Norway

Date

Wednesday 26 June 2019.

Hotel accommodation

Grand Hotel, Anders Beers gate 9, N-4400, Flekkefjord, Norway. A block of rooms has been reserved for IMPETUS. Price per room/person/night including breakfast is 1295 NOK. Participants to pay hotel accommodation directly at the hotel.

Getting there

By plane:

Stavanger airport (SVG). Rent a car and drive to Flekkefjord (120 km – max 2 hours).

By car from the Continent:

Drive to Hirtshals in Denmark and take the ferry to Kristiansand (approximately 3 hrs). Drive from Kristiansand to Flekkefjord (1.5 hrs).

Parking

See attached map.

Registration & hotel booking

Contact Arve Grønsund Hanssen directly for both registration and hotel booking. **Deadline for hotel reservation is 05 April 2019.**

Costs

150 Euro per person to cover coffee breaks, lunch, dinner and social programme. There is no fee for IMPETUS DEFENCE 2 partners or for presenters.



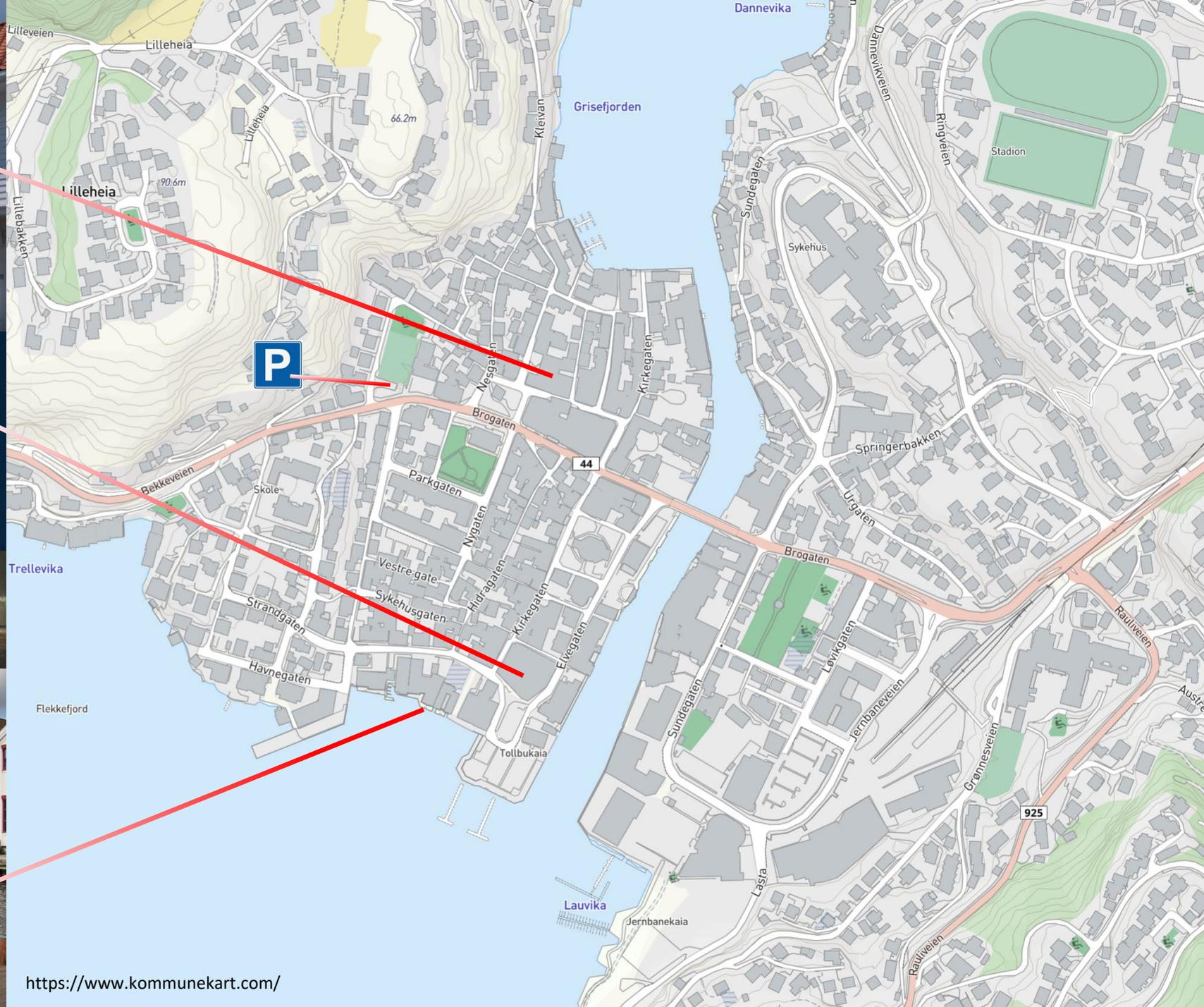
Grand hotel



SPIRA – main venue



IMPETUS



A Norwegian flag with a red field, a white Scandinavian cross outlined in blue, flying from a wooden pole on the left. The background shows a coastal town with colorful houses (red, white, yellow) and a sailboat on the water under a blue sky with light clouds.

Social programme

On the evening of Wednesday 26 June we will go for a boat trip and have dinner.

Remember that we are on the coast of Norway – wind and rain occur. Bring proper clothing.