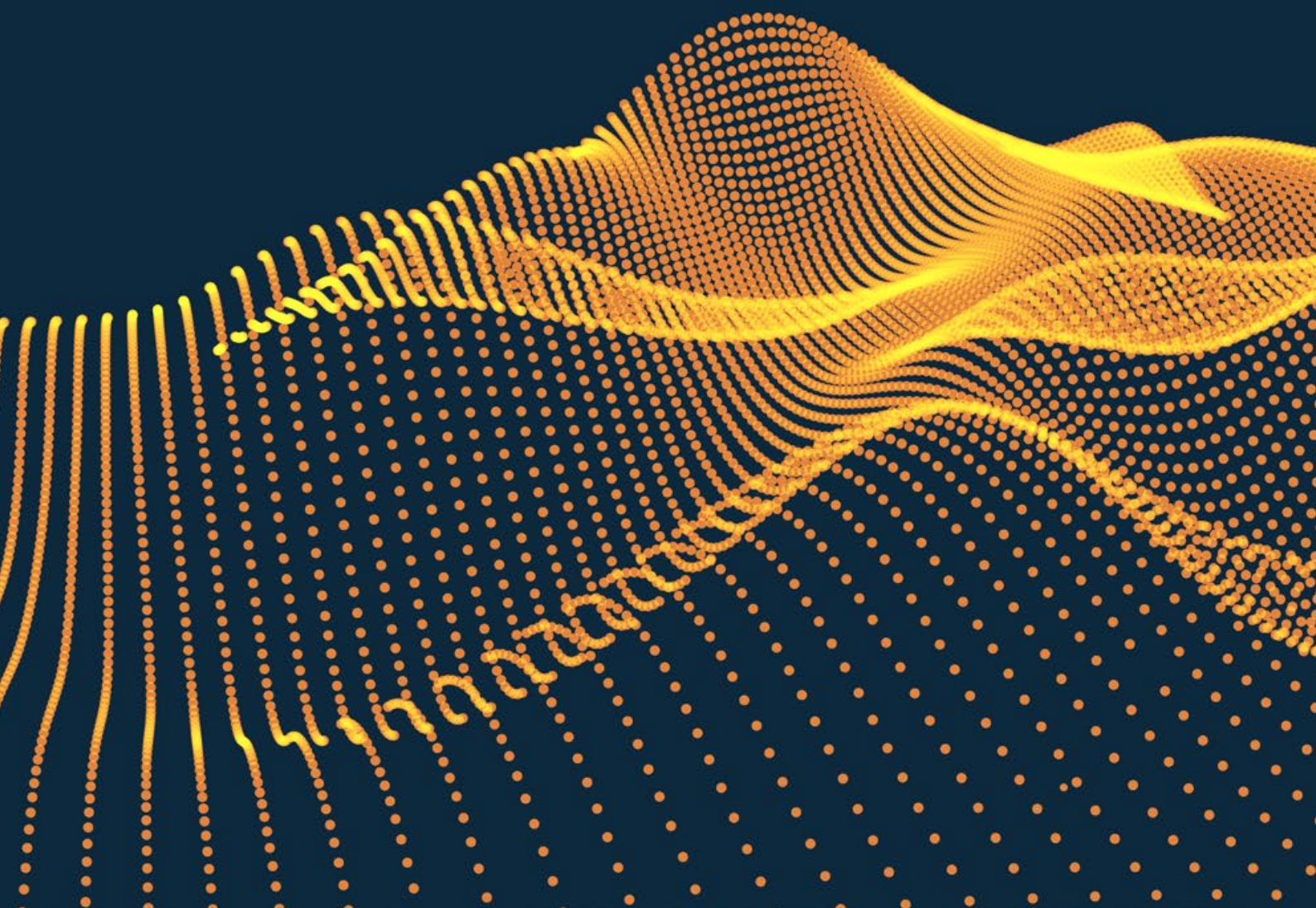
Modelon

INNOVATE

2022 ▪ Oct 19–20 ▪ Stockholm



Modelon Innovate Social Media Challenge

#Innovate2022

Entry Rules

1. **Post to a social media channel (LinkedIn, Twitter, Facebook) with a picture from Innovate**
2. **Tag Modelon in your post**
3. **Add the hashtag #Innovate2022 in your post**

Maximum one entry per social media channel (LinkedIn, Facebook, and Twitter).

Winners will be announced at the end of Day 2.
If a winner is not present during the raffle announcement, Modelon will mail the backpacks to them.

https://www.linkedin.com/company/modelon/
https://www.facebook.com/ModelonSoftwareSolutions/
https://twitter.com/modelon

Day 1 Agenda

Demo stations for Modelon Impact will be available throughout Day 1 in the registration area.

	Wallenbergsalen Room	Wenström Room
08.00 – 09.00	Registration and Networking, Registration Area	
09.00 – 09.15	**Opening Remarks** *Magnus Gäfvert, Modelon*	
09.15 – 10.00	**Modeling the Future** *Tony Phipps, Rolls Royce*	
10.00 – 10.45	**Modelon Roadmap and Future** *Johan Andreasson, Hilding Elmqvist, and Johan Windahl, Modelon*	
10:45 – 11:05	Coffee Break	
11:05 – 11:35	**Predictive Maintenance Based on Physics Simulation of Components (Digital Twin in Plant Maintenance)** *Cristian Solís Calderón and Pablo Solé, Iquant Consulting*	**Modeling of Automotive Thermal Management Systems Using Modelon Impact** *Marc Graaf, SynErgy Thermal Management*
11:35 – 11:40	Transition Break	
11:40 – 12:10	**Automated Modeling Using Modelon Impact and Teaser for Building Optimization** *Nerea Aranda, R2M Solution*	**Emission Free Propulsion of Offshore Service Vessels** *Martin Nuernberg, Newcastle Marine Services*
12:10 – 13:30	Lunch and Coffee, Banquet Hall	
13:30 – 14:00	**Fortran to Modelica and FMI: A Success Story** *Greg Leaper, Collins Aerospace*	**Dynamic Simulation of Air-Rock Bed Concentrating Solar Thermal Plant With a Reduced-Order Mock Thermal Energy Storage** *Eric Jin, Heliogen*
14:00 – 14:05	Transition Break	
14:05 – 14:35	**Optimization of a Tractor-Semitrailer Vehicle Model** *Mohamed Takkoush, Volvo Autonomous Solutions*	**Hybrid Power Systems Modeling for Economic and Operational Optimization** *Jim Harper, Electric Power Research Institute (EPRI)*
14:35 – 14:40	Transition Break	
14:40 – 15:10	**Design and Validation of a Transcritical CO2 Heat Pump Model on Industrial Scale with Fast Dynamics** *Leonhard Wolscht, MAN Energy Solutions*	**Rsoc System: Modeling and Control Development With Modelica-Based Language** *Michele Bolognese, Fondazione Bruno Kessler (FBK)*
15:10 – 15:30	Coffee Break	
15:30 – 16:00	**Long Time Scale Simulation of Steam Generating Concentrating Solar Thermal Plant** *Karthik Rajasekaran, Heliogen*	**Model-Driven Digital Twin for Predictive Maintenance in Solar Plants** *Benedicte Piret, ENGIE*
16:00 – 16:05	Transition Break	
16:05 – 16:20	**Closing Remarks**	
18:00 – 22:00	Harbor Cruise on the M/S Waxholm III. See page 14 for directions to the harbor.	

Day 2 Agenda

	Wenström Room	Wingquist Room	Rausing Room
Track	Basic Modelon Impact Hands-On Training	Sustainable Aviation and Industrial Equipment Applications	Traditional Energy Technology and Leading Trends
8:30 – 9:00	Registration and Networking, Registration Area		
09:00 – 09:45	**Getting Started with Modelon Impact Cloud** In this session, learn more about the latest 2022.2 release on the cloud! Get hands-on training for operating basic Modelon Impact workflows using dynamic simulation. Course takeaways and learnings: • Configure a model • Run a simulation • Present the results beginner · cloud	**Industrial Equipment – HVACR Applications** Learn how to build a closed-loop Brayton cycle with supercritical CO2. Course takeaways and learnings: • Parameterizing components • Building component testbenches • Building full cycle model beginner · industrial equipment · industry vertical · productivity · HVACR	**Traditional Energy Applications** In this session, learn how to create well-structured and complex thermal energy system models. Course takeaways and learnings: • Use-case examples • Process systems models • Integrating controls • Best practices, tips, and tricks intermediate · energy · industry vertical · productivity
9:45 – 10:00		Transition Break	
10:00 – 10:45	**Tools and Add-Ons with Modelon Impact Cloud** In this session, learn how to increase productivity by using simulation automation in the cloud through scripting. Course takeaways and learnings: • Jupyter notebooks • Modelon Impact Python Client • How to run a simulation • How to retrieve results and complete plotting intermediate · cloud · productivity	**Traditional Aerospace Applications** The design and development of aircraft and sub-systems pose many challenges. Learn how Modelon libraries can be used for thermal modeling, flow calibration steady-state workflow, and the integrated simulation of aircraft and sub-systems Course takeaways and learnings: • Thermal modeling • Flow calibration steady-state workflow • The integrated simulation of aircraft and sub-systems beginner · industry vertical · aerospace · productivity	**Hybrid Energy System Applications** Learn how hybrid energy system operation and design can be simulated and optimized using Modelon Impact. Course takeaways and learnings: • Hybrid-energy system use-cases • Dynamic optimization basics • Optimization friendly models • Integration: Custom function, notebooks, and Web Apps intermediate · industry vertical · energy · productivity
10:45 – 11:00		Transition Break	

Day 2 Agenda

	Wenström Room	Wingquist Room	Rausing Room
11:00 – 11:45	**Modelon Media Properties** Modelon has its own unique media offering. In this session, learn how to choose a library and media to best suit your needs. Course takeaways and learnings: • How to choose library and media • Best practice in usage • Tips on dos and don'ts intermediate · productivity · best practice · thermofluid	**Electrified and Hydrogen Hybrid Aerospace Applications** New propulsion concepts can be simulated and designed using Modelon Impact. Learn the different applications available to you. Course takeaways and learnings: • Hybrid electric gas turbines • Hydrogen storage and distribution • Fully electric beginner · industry vertical · aerospace · electrification · productivity	**Energy CO_2 Capture for Traditional Energy Applications** Learn about Modelon's chemical models for capturing carbon dioxide from conventional power plant flue gas or ambient. Course takeaways and learnings: • Overview on available technology and usage • Available separation process models • Integration with power plant models Beginner · Energy vertical · Industry Vertical · Productivity
11:45 – 13:00	Lunch and Coffee, Salons 1, 2, and 3		
Track	Advanced Modelon Impact Hands-On Training	Automotive Application Solutions	Advanced Workflows and Applications
13:00 – 13:45	**Turbocharging Collaboration** In this session, learn how to create, code, maintain, and manage models. We'll also introduce the concept of a workspace and the best practices of using one. Course takeaways and learnings: • Use workspace manager app • Versioned library exploration • Modify source code • Check in modifications to repo intermediate · best practice · code development	**Air Conditioning as a Heat Pump** Heat-pump air conditioning systems are key enablers for hybrid and all-electric vehicle energy efficiency gains. Learn how Modelon's ThermoFluid libraries can be used to model heat pump systems to assess system design and vehicle attribute tradeoffs. Course takeaways and learnings: • Model heat pump systems • Assess system design • Assess vehicle attribute tradeoffs intermediate · automotive · HVACR · industry equipment	**Creating App and Deployment Options** Modelon Impact Cloud is an open cloud architecture that promotes productivity in many ways including supporting applications. Course takeaways and learnings: • Export a model in App Mode • Publish an app using Python and Viola • General API intermediate · cloud · deployment
13:45 – 14:00	Transition Break		

Day 2 Agenda

	Wenström Room	Wingquist Room	Rausing Room
14:00 – 14:45	**Model Initialization and Debugging** While setting up a modeling example, we'll highlight the steps needed to get your model to run properly. Modelon Impact Cloud has built-in model diagnostics that are very useful for debugging. Course takeaways and learnings: • State selection • Initial conditions • Nonlinear systems • Diagnostics • Compiler steps advanced · compiler · best practice · thermofluid	**Electrification Solutions for Automotive Applications** Electric vehicles pose many multi-domain engineering challenges. In this session, you will learn how Modelon libraries can be used to model electric powertrains for use cases involving rough system sizing, fast power electronic switching dynamics, and battery thermal management. Course takeaways and learnings: • Scalable multi-domain modeling of electric powertrains • Adapting battery model fidelity to different engineering use cases • Evaluating different aspects of battery thermal management beginner · industry vertical · automotive · electrification · productivity	**Open Innovations** Expanding upon the API and using readily available open technologies, we'll show a number of external tool integrations and workflows. Course takeaways and learnings: • Open workflows • API expansion advanced · deployment · cloud · digital twin
14:45 – 15:00	Transition Break		
15:00 – 15:45	**Python Client Multi-Execution and Advanced Plotting** Modelon Impact Python Client allows for advanced python-based workflows. In this session, we'll look at the multi-execution interface, as well as some bespoke post-processing capabilities. Examples include pie charts, Sankey, spatial distribution, etc. Course takeaways and learnings: • Multi-execution interface exploration • Post-processing capabilities advanced · productivity · post-processing · aerospace	**Vehicle Dynamics Solutions** In this session, we'll show how we can complement regular dynamic simulations with steady-state analysis, design optimization, and real-time deployment to cover use cases from concept evaluation to design verification. Course takeaways and learnings: • Dynamic simulations • Steady-state analysis • Design optimization • Real-time deployment - DIL with VI-DriveSim intermediate · automotive · steady state · optimization	**Dynamic Optimization** Trajectory optimization is used to solve for control and design problems. In this session, we'll present the supported approach for this topic and illustrate it in industrial use cases. Course takeaways and learnings: • Trajectory optimization • Energy-microgrid • Multi-rotor drone advanced · deployment · optimization
15:45 – 16:00	Transition Break		
16:00 – 17:00	Networking		

Presentation Abstracts

Modeling the Future

Rolls Royce

Tony Phipps
Chief of Future Methods

The world is ever changing and constantly needs innovation to meet the needs of customers. Companies and research organizations have always needed to organize themselves for this, in the most effective ways. However, with the climate change imperative, the rate of change has greatly accelerated, but unfortunately occurring just after the economic shock of a global pandemic. This presentation will cover this background, discussing the needs for significant changes in product designs and the trends in simulation engineering to economically address these challenges. It will encompass both near term step changes and more radical future looking opportunities in simulation.

Predictive Maintenance Based on Physics Simulation of Components (Digital Twin in Plant Maintenance)

Iquant Consulting

Cristian Solís Calderón
Mechanical Engineer and Partner

Pablo Solé
Business Developer

This presentation focuses on the work proposed to take advantage of technological advances of industry 4.0 - to change the approach of computational simulation and processing in real time - each of components involved in an industrial process. In this way, we'll discover internal phenomenon which are complex to measure and are useful for predictive maintenance. This methodology is called Digital Twin in Plant Maintenance, and under several projects that had been made during the last years, it could verify an effectivity greater than 95% to predict and/or alerting abnormalities for assets from different industries.

Automated Modeling Using Modelon Impact and Teaser for Building Optimization

R2M Solution

Nerea Aranda
Modeling, Simulation, and Building Energy Efficiency Engineer

The analysis of a building's energy performance makes it possible to predict behaviors and mitigate associated risks. In order to carry out this analysis, it is necessary to obtain thermal models that are as close as possible to reality. In addition, modeling and simulation allow verifying its performance in a non-invasive manner, thus making it possible to propose energy optimization actions while enabling decision-making.

In this presentation, we'll show the workflow of building and verifying pre-calibrated reduced order models, used for building optimal operation. First, the models will be generated automatically using TEASER (tool for fast generation of archetype buildings with low input requirements). Then, with Modelon Impact we'll manipulate, simulate, and verify the pre-calibrated model. Finally, we'll extract the model parameters to be used in the optimization environment GEKKO. We'll conclude with the findings of the verification process.

Presentation Abstracts

Optimization of a Tractor-Semitrailer Vehicle Model

Volvo Autonomous Solutions

The dawn of autonomy has arrived. While this topic ignites interest in the automotive industry, it has a fair share of difficulties. As humans, we are equipped with high complexity algorithms that allow us to control a vehicle safely. The task of replacing a human driver with an autonomous one is not straight forward. The autonomous driver needs to understand the behavior of the system under control to ensure a high-performance level. Hence, an accurate vehicle dynamics model is often required. The problem with such model is that accuracy comes at the expense of computational speed. In this presentation, a process is proposed for optimizing tractor-semitrailer vehicle models to ensure a high accuracy while maintaining a low computational cost.

Mohamed Takkoush
Vehicle Dynamics Analyst

Design and Validation of a Transcritical CO2 Heat Pump Model on Industrial Scale with Fast Dynamicst

MAN Energy Solutions

Replacing base load providers on the energy market with decarbonized, renewable alternatives increases frequency dynamics and operational flexibility on the grid. Large transcritical CO2 heat pumps, as part of the ETES system by MAN Energy Solutions, engage slow dynamics for thermal energy storage and fast dynamics as they qualify primary frequency reserve for grid stabilization purposes.

We'll present the dynamic model of a full CO2 transcritical heat pump cycle implemented with the Vapor Cycle Library, ThermoFluid Library, and own models. Integrating multistage compression, motor cooling streams and bypasses yields an in-depth representation of the full fluid path. Validation against testbed data of a commercial heat pump shows an accuracy within 10%. The dynamics during a valve variation along constant turbomachine speed and fast load balancing via speed variation - where power consumption changes over 70% from nominal within 30 s – will be demonstrated to match the testbed behavior.

Leonhard Wolscht
Chief Competence Center Process Engineering (cross-ING AG) and Simulation Engineer

Dynamic Simulation of Air-Rock Bed Concentrating Solar Thermal Plant With a Reduced-Order Mock Thermal Energy Storage

Heliogen

This presentation covers the performance evaluation of an air-rock bed concentrated solar thermal (CST) system requiring a robust and accurate rock bed Thermal Energy Storage (TES) model. We'll show a dynamic CST system model with a reduced-order thermal energy storage model developed in Modelon Impact to balance model accuracy and computational cost. In addition, a high-fidelity MATLAB TES model used to calibrate the Modelica TES model. The behaviors of the high-fidelity and mock models after simulated for 10 charging/discharging cycles (240 hours of operation) in a plant cold startup operation will be compared by plotting the temperature profile within the TES along the length of the TES vessel. The error quantified with the normalized root mean square errors (NRMSE) of the fluid temperatures at the inlet and outlet of the TES at thousands of simulation time steps. This study will demonstrate that the reduced-order mock model could capture the physical behavior of the high-fidelity model, while improving the simulation speed.

Eric Jin
Senior Process Engineer

Presentation Abstracts

Long Time Scale Simulation of Steam Generating Concentrating Solar Thermal Plant

Heliogen

Karthik Rajasekaran
Simulation and Optimization Engineer

Complex engineering systems operate in a wide variety of operating conditions. Estimating the performance of these systems using simulation requires the development of models capable of simulating variable operating conditions over long time scales. Because the time scales are long, it is necessary for these models to be robust, accurate and minimal in complexity. To demonstrate an application of this method, a model capable of long-time scale simulation of the operation of a concentrated solar thermal (CST) plant designed to produce steam was developed in Modelon Impact. The simulated performance of this plant was compared to results from a similar model in Python and showed close agreement. This study demonstrates that Modelon Impact can be used to estimate the performance of complex engineering systems over long time scales and a wide variety of operating conditions.

Modeling of Automotive Thermal Management Systems Using Modelon Impact

SynErgy Thermal Management

Marc Graaf
Managing Partner

For vehicles, thermal management developments are a key technique for reducing CO2 emissions and improving passenger comfort. As regulations continue to tighten, thermal management systems remain critical for modernizing. This presentation will focus on modeling and simulating automotive thermal management systems using Modelon Impact, integrated libraries, and additional libraries to optimize and analyze varying thermal management system models and components to generate improved results. We'll cover enhancing and standardizing reports generated from results, varying parameter studies to directly see outcomes, and validate test results to understand the parallel outcome to reality.

The integrated libraries for this example in Modelon Impact include Modelon's Air Conditioning Library, Liquid Cooling Library, Vapor Cycle Library, and Heat Exchanger Library. Additionally, Dymola models from other commercial libraries which are integrated into the workflow as FMUs. This session will give you an easy approach to rethink the way you model your systems and how Modelon Impact can support you and your customers.

Rsoc System: Modeling and Control Development With Modelica-Based Language

Fondazione Bruno Kessler (FBK)

Michele Bolognese
Researcher

In a massive decarbonization scenario, characterized by an increasing penetration of RES within energy systems, the integration of green hydrogen solutions plays a crucial role. RSOC (reversible Solid Oxide Cell) technology are usable for electricity generation (fuel cell, SOFC) and for hydrogen production (electrolyzer, SO-WEL) mode, allowing the cogeneration of thermal energy. However, rSOCs need a complex BoP for the thermal management and advanced controls, able to guarantee high efficiency even at partial load mode as well as easy start-up and shutdown procedures. In this work, a complete system model has been developed, focusing to the control development of the system. The developed model enables the evaluation of a detailed system analysis and operation. The model can be a useful design tool for the upscale of the rSOCs technology in different scenarios and applications, and to test and optimize the control strategy.

Presentation Abstracts

Emission Free Propulsion of Offshore Service Vessels

Newcastle Marine Services

Martin Nuernberg
Managing Partner

Providing clean operation of ships working to support the rapid expansion of offshore renewable energy generation in European waters is a major part of the maritime decarbonization efforts. Due to the near shore location and short sailing duration, vessels operating in support of the construction, operation, and maintenance of offshore wind farms are ideal candidates for the demonstration of zero emission ship operation.

This presentation will present the modelling of a vessels tank and power system in Modelon Impact to determine the feasibility of operating offshore service and support vessels with hydrogen fuels such as liquid organic hydrogen carriers. The model considers various operational profiles of such vessels replicating typical offshore endurances ranging from daily operations to month long offshore endurance for various types of work, in combination with an LOHC tank model and fuel cell sizing to determine the actual offshore endurance achievable.

Fortran to Modelica and FMI: A Success Story

Collins Aerospace

Greg Leaper
Senior Manager,
Aero-Thermal Fluid

Fortran is a procedural language developed in the 1950s and was especially suited for numeric computation. Our company has used Fortran since the 1970s to model and analyze physics-based equations to understand the thermodynamics of our systems. With a diminishing number of engineers coming into the workplace that know Fortran, a newer, more object-oriented modeling language was selected as a replacement that could also help us toward a standard to exchange models with customers and suppliers (i.e., FMI). Through this transition, we can add new features to our libraries, generate multiple abstraction layers to have a common structure between optimization, steady state and dynamics, add on a more user-friendly modeling interface, and make our compiler and solver more robust.

Hybrid Power Systems Modeling for Economic and Operational Optimization

Electric Power Research Institute (EPRI)

Jim Harper
Technical Lead, Principal

Hybrid power systems are of increasing interest in industry today. Systems that generate hydrogen through renewable energy sources and using that hydrogen as an energy storage source for use in dispatchable power generation are being evaluated around the word. Models have been developed using Modelon technology to evaluate the detailed operation and produce techno-economic studies of their viability with studies evaluating performance such as ROI. A detailed model using real environmental conditions as inputs to determine years' worth of expected operational data have been developed and studied. The system model has been used in optimization studies to determine optimal system sizing in energy generation, storage, operational times to maximize system performance and efficiency. Modeling also includes detailed operational models such as ensuring gas blending is kept stable and to provide insight into important control schemes such as Trip Avoidance. The use of the python FMI is also included in this presentation.

Presentation Abstracts

Model-Driven Digital Twin for Predictive Maintenance in Solar Plants

ENGIE

This presentation focuses on the successful collaborate between ENGIE and Modelon to successfully build a digital twin for predictive maintenance on a solar power plant. We'll cover how a physics-based model was used in Modelon Impact and integrated with real-time measurement data and maintenance records. We'll show how doing this allowed our team to monitor main assets performance, detect anomalies, measure the impact of any event on performance, and feed Machine Learning algorithms to optimize asset management.

Benedicte Piret
Leader of Efficiency and Operational Sustainability

Modelon Presentations

Modelon Innovate Opening Session

Modelon

Welcome to Modelon Innovate! To kick off the two-day conference, Modelon's Co-Founder and CEO, Magnus Gäfvert, will present an opening address.

Magnus Gäfvert
Chief Executive Officer

Modelon Roadmap and Future

Modelon

Wondering what's in store for the future of Modelon Impact? Johan Andreasson, Chief Product Officer, Hilding Elmqvist, Chief Technology Officer, and Johan Windahl, Product Manager, take center stage to share the product roadmap. From pre-built workflows to cloud-based collaboration features, we're giving attendees the first look at what's to come.

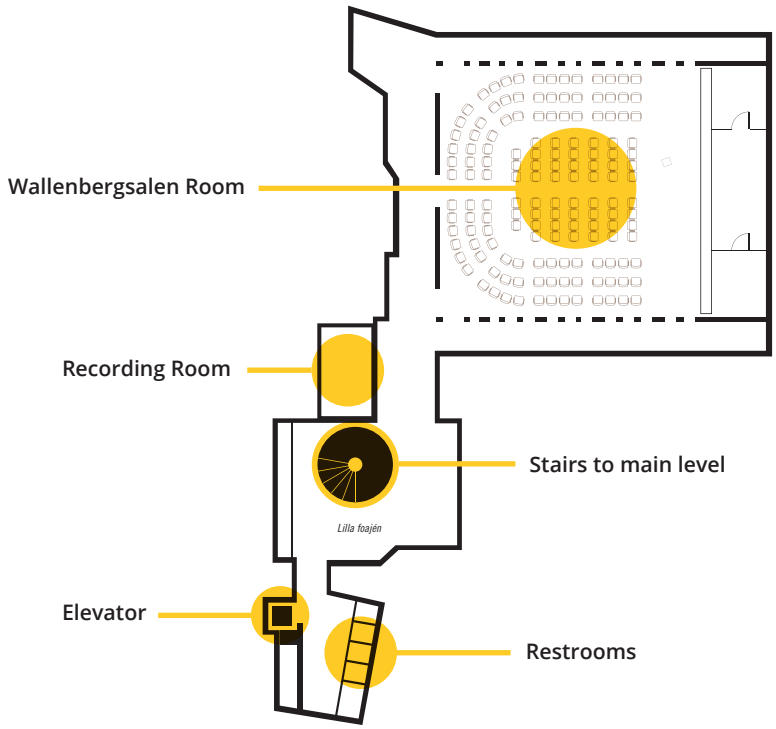
Johan Andreasson
Chief Product Officer

Hilding Elmqvist
Chief Technology Officer

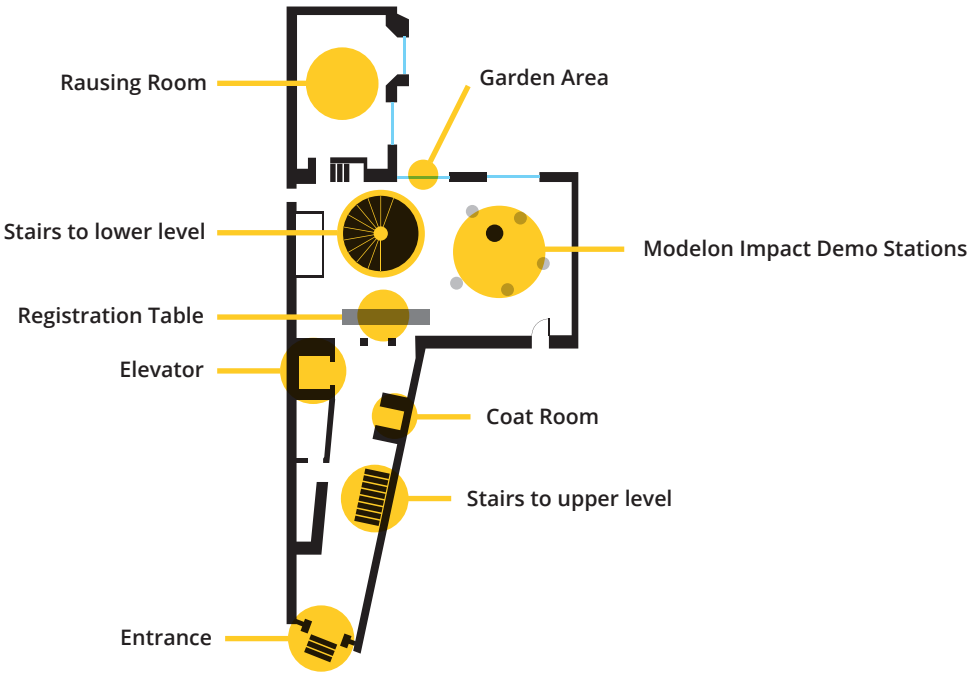
Johan Windahl
Product Manager

Floorplans

Lower Level

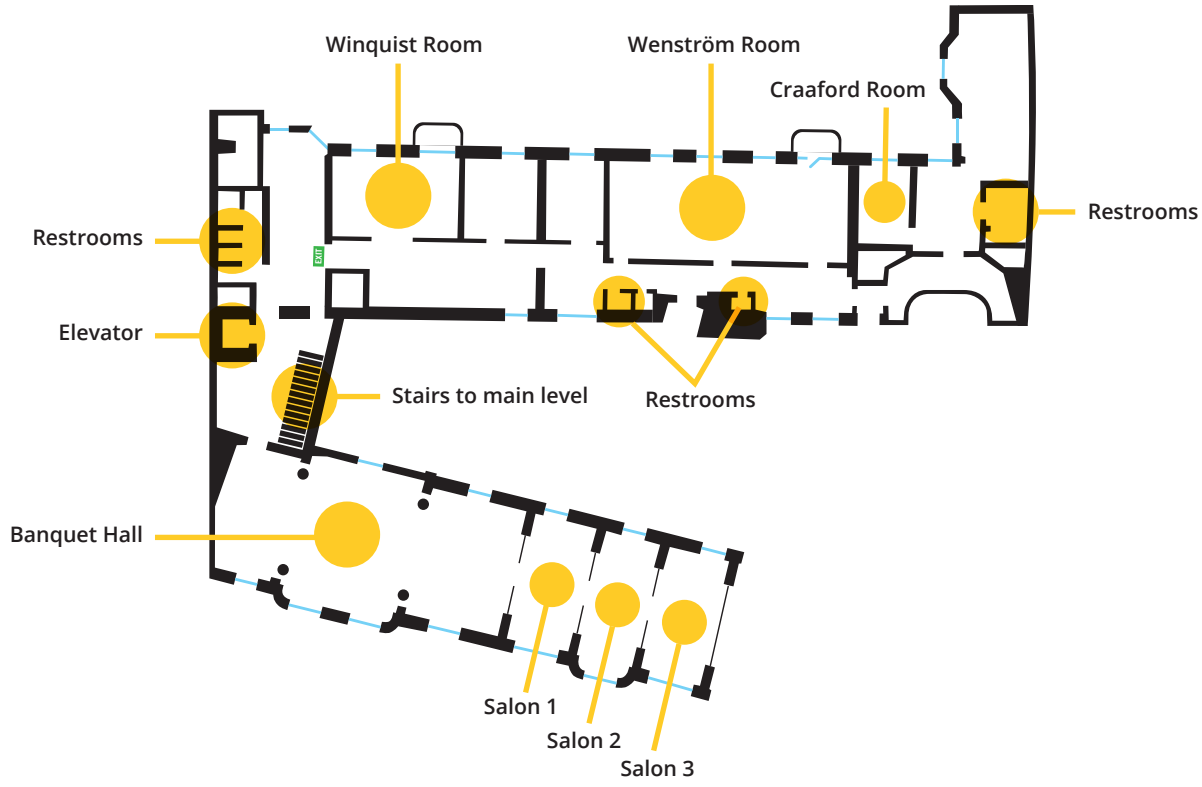


Main Level

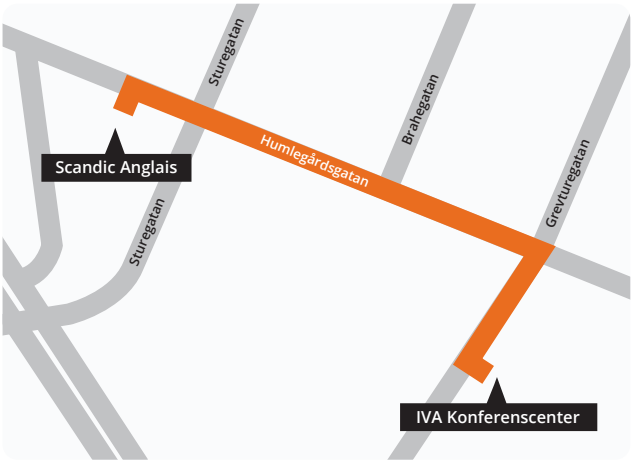


Floorplans

Upper Level

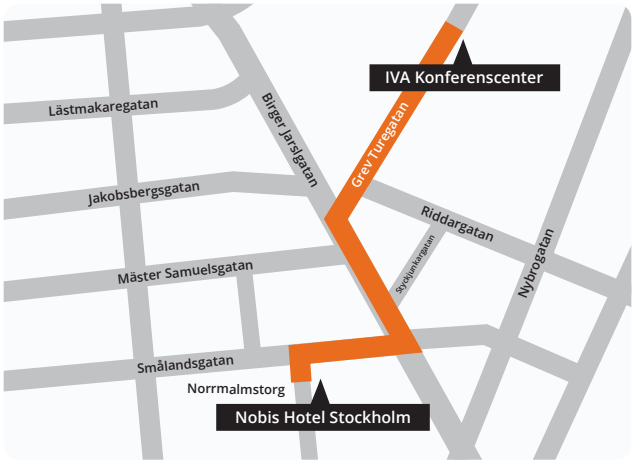


Maps and Travel



Scandic Anglais to IVA Konferenscenter

Humlegårdsgatan 23, Stockholm to
Grev Turegatan 16, Stockholm

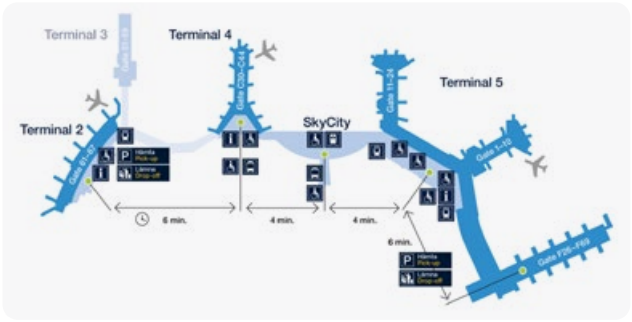


Nobis Hotel Stockholm to IVA Konferenscenter

Norrmalmstorg 2-4, Stockholm to
Grev Turegatan 16, Stockholm

IVA Konferenscenter to Nybrokajen (a Harbor Cruise Boat Dock – Look for the M/S Waxholm III)

Grev Turegatan 16, Stockholm to Nybrokajen



Arlanda Airport

190 45 Stockholm-Arlanda, Sweden

Transportation Options in Stockholm

Arlanda Airport to Stockholm City

Train

TaxiKurir Stockholm

+46 8 30 0000
Taxi Kurir for iOS
Taxi Kurir for Android

Taxi Stockholm

+46 8 15 0000
Taxi Stockholm for iOS
Taxi Stockholm for Android

Uber

Uber for iOS
Uber for Android

Bolt

Bolt for iOS
Bolt for Android

Stockholm eBikes

The city of Stockholm's loan bikes E-bikes are the cheapest – and perhaps the most convenient – way to get around central Stockholm. With the app you find and unlock your bike and use it for 90 minutes. You then have to pay extra or leave it in one of the special parking spaces. The bike can also be temporarily parked in other locations and locked with the app.

Stockholm eBikes for iOS
Stockholm eBikes for Android

Travis

Travis is a travel app that lists several different travel options. The app helps you find the nearest electric scooter, rental bike, driveway parking or subway station. You can also buy SL tickets directly in the app. The app is free and available for iOS and Android.

Travis for iOS
Travis for Android

Public Transportation: How to Travel With SL

Train
Information for visitor tickets

SL - Reseplanerare och biljetter = Travel planner and tickets

SL - Reseplanerare och biljetter to iOS
SL - Reseplanerare och biljetter to Android

Travel Information by Metro and Train

There is a manned barrier and automatic barriers at almost all of the stations. If you use the SL app or a contactless card (Visa, Mastercard, or American Express), you should touch in on the green ticket reader. If you use an SL Access card you should touch in on the blue card reader.

At the smaller country stations there might be no barriers at all. You must have credit (reskassa) on your SL Access card, tap your contactless card (Visa, Mastercard or American Express) on the SL ticket post, buy a ticket with the app or buy a single use travelcard in advance.

All Metro and commuter trains stop at all stations along the line, apart from express trains that skip certain stations. Express trains only run on the commuter rail lines and during peak hours.

Things to do in Stockholm

Visit the Vasa Museum

Galärvarvsvägen 14, 115 21 Stockholm, Sweden

The Vasa Museum is the most visited museum in Scandinavia. Here, learn about the warship Vasa's history and life at the time - how after 333 years at the bottom of Stockholm Bay, the ship was rediscovered and salvaged, and the research which is now underway to preserve Vasa.

Experience the ABBA the Museum

Djurgårdsvägen 68, 115 21 Stockholm, Sweden

ABBA The Museum is a Swedish interactive exhibition about the pop band ABBA that opened in Stockholm, Sweden in May 2013. ABBA's collected works are showcased in a contemporary, interactive setting.

Go Back in Time at the Viking Museum

Djurgårdsstrand 15

The Viking Museum is a museum entirely dedicated to the Viking Age through an exhibition and a Viking Journey - Ragnfrid´s Saga. Vikingaliv is based on historical facts combined with the most recent discoveries of Viking history.

Check out the Fotografiska

Stadsgårdshamnen 22, 116 45 Stockholm, Sweden

Fotografiska is neither a traditional museum nor gallery. Without permanent exhibitions or artwork for sale, it is aimed solely to inspire, entertain, and create impact. Discover world-class photography, eclectic programming, elevated dining, and surprising new perspectives here.

Stop by the Nobel Prize Musuem

Stortorget 2, 103 16 Stockholm, Sweden

The Nobel Prize Museum illustrates a century of creativity, where visitors can follow the changes of the 20th century through the Nobel Prize and the Nobel Prize laureates. Explore the work and the ideas of more than 900 creative minds presented through short films, original artifacts, and computers.

Modelon Impact

Accurate Simulations. Better Decisions.

A cloud platform for virtually designing, simulating, and analyzing industrial systems.

At The Conference

Modelon Impact Demo Stations

Looking for a hands-on experience of the latest and greatest that Modelon Impact has to offer? Stop by the Modelon Impact Demo Stations! The following pre-planned demos are available for you to check out:

Clean Aircraft
Convert a model of the NASA X57 aircraft to fully electric propulsion. Simulate and visualize the new model via 3D viewer.

Powerplant Predictive Maintenance
Run a digital twin model of a heat exchanger in Modelon Impact to detect failures in the monitoring dashboard.

Detailed Battery Thermal Management
Run a complex battery thermal management model in Modelon Impact with different ambient temperatures.

Heat Pump for Residential Buildings
Integrate an HVAC heat pump model with the LBNL Buildings Library in Modelon Impact. Simulate different ambient pressures to measure heat pump power output.

After The Conference

Online Resources

For the community help center, visit help.modelon.com

For features and benefits information on Modelon Impact, visit modelon.com/modelon-impact

For published case studies from Modelon Impact customers, visit modelon.com/support-learning/resources/

For information on libraries within Modelon Impact, visit modelon.com/products/modelon-library-suite-modelica-libraries/

To stay up to date with product information, sign up for our newsletter at modelon.com/sign-up-for-our-newsletter/

Important Numbers and Information

Event Organizers

Swati Tyagi +1 (734) 833-3357
swati.tyagi@modelon.com

Kenzie Maurice +1 (734) 233-8506
kenzie.maurice@modelon.com

Jenny Nilsson
jenny.nilsson@modelon.com

Emergencies – Call 112

COVID 19 Testing at Arlanda Airport

You can book a time and take a PCR test and get a travel certificate issued at the airport. ExpressCare conducts has a lab in its test center at the airport for analyses.
The response time is 2-4 hours for the PCR tests. You'll find Express Care in the area called SkyCity before security.
Hours: 8:00 AM – 8:00 PM
https://www.swedavia.com/arlanda/service/testcenter-for-pcr--och-antigentester

COVID 19 Testing Near Modelon Innovate

Hours:
Weekdays 08.15 – 17.00
Weekends: 09.00 – 17.00
Closed During Lunch: 12.30 – 13.30
Vasagatan 9, Stockholm
+46 8 14 24 49
https://www.testmottagningen.se/en/tester/covid-19/

Pharmacy - Apoteket Elefanten

+46 77 145 04 50
Humlegårdsgatan 10

IVA Conference Center

+46 8 791 30 00
Grev Turegatan 16, Stockholm

Scandic Anglais Hotel

+46 8 517 340 00
Humlegårdsgatan 23, Stockholm

Nobis Hotel Stockholm

+46 (0)8-614 10 00
Norrmalmstorg 2-4, Stockholm

Thank you for attending Modelon Innovate 2022!

Modelon

INNOVATE

2022 ▪ Oct 19–20 ▪ Stockholm