



# Mastering the Software

**After this training you will have a deeper understanding of THERCAST®, and you will also be able to comfortably build advanced models that gives meaningful results.**

This training is for those that want to use THERCAST® at its full potential. We take our time to explain how THERCAST® works in detail, not only the fundamental theory, but also the thought process to build advanced models and how to interpret the results.


## LEVEL


 **Advanced**

## PREREQUISITES

 **A first experience with THERCAST® software is required**

## GOALS

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- **Overview of main multi-physics equations and algorithms**
  - **Performing your data setup in line with the recommended workflow**
  - **Analyze and compare case studies with different configurations**
  - **Understanding and analyzing the results**



TRAINING	DURATION	PRICE EXCL. TAX	PARTICIPANTS
In-company	2 days	€2800 per training	1 to 3 people

**DAY 1 >** 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of Transvalor</li> <li>• Course goals</li> </ul>
<b>Multi-physics (Theory)</b>	<ul style="list-style-type: none"> <li>• Thermal</li> <li>• Thermo-Mechanical</li> <li>• Macrosegregation</li> <li>• Boundary Conditions</li> <li>• Liquid, Solid and Solidifications constitutive equations</li> <li>• Turbulent Model</li> </ul>
<b>Material Data Tool</b>	<ul style="list-style-type: none"> <li>• Reading the data</li> <li>• Minimum input required</li> <li>• Macrosegregation               <ul style="list-style-type: none"> <li>- Microstructure and Microsegregation</li> <li>- Heterogeneous liquid flow</li> </ul> </li> <li>• Import data from a JMatPro file</li> </ul>
<b>Macrosegregation Case Study</b>	<ul style="list-style-type: none"> <li>• Presentation of case study</li> <li>• Analysis of results               <ul style="list-style-type: none"> <li>- Enrichment influence</li> <li>- Visualization of scalars</li> <li>- Synchronized multi-window</li> </ul> </li> </ul>

**DAY 2 >** 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

<b>Meshing</b>	<ul style="list-style-type: none"> <li>• Mesh Repair</li> <li>• Breaking Elongated Elements Technique</li> <li>• Void Meshing</li> <li>• Mesh adaptation               <ul style="list-style-type: none"> <li>- Algorithm</li> <li>- Visual Examples</li> <li>- Tips and Tricks</li> </ul> </li> </ul>
<b>Advanced Setup data options</b>	<ul style="list-style-type: none"> <li>• Inlet</li> <li>• Filter</li> <li>• Surface Tension</li> <li>• Porous Mold</li> <li>• Chained Simulations</li> </ul>
<b>Advanced Calculation Models</b>	<ul style="list-style-type: none"> <li>• Radiation</li> <li>• CAFE Method</li> </ul>
<b>Advanced results analysis options</b>	<ul style="list-style-type: none"> <li>• Sensors, Inclusions, Samples and Bubbles</li> <li>• Storage and Timestep</li> <li>• Synchronized multi-window animation</li> <li>• Improved readability</li> <li>• Custom actions</li> </ul>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Questions and course assessment</li> </ul>