

**CRYSMOD**  
Internet platform providing  
expertise in numerical  
simulation of crystal growth  
processes

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**H2020 DT-NMBP-10-2019:  
Translation of manufacturing problems into materials modelling**

# CRYSMOD – Internet platform providing expertise in numerical simulation of crystal growth processes

Si for electronics



**100 - 150 SME companies in Europe**



Quartz for computers



Lasers, sensors ...

# CRYSMOD – Internet platform providing expertise in numerical simulation of crystal growth processes

## Idea:

**To stimulate the use of modelling and numerical simulation by the crystal growth industry.**

**The project will create an internet hub for cross-contact between companies, academics, simulation companies and experts.**

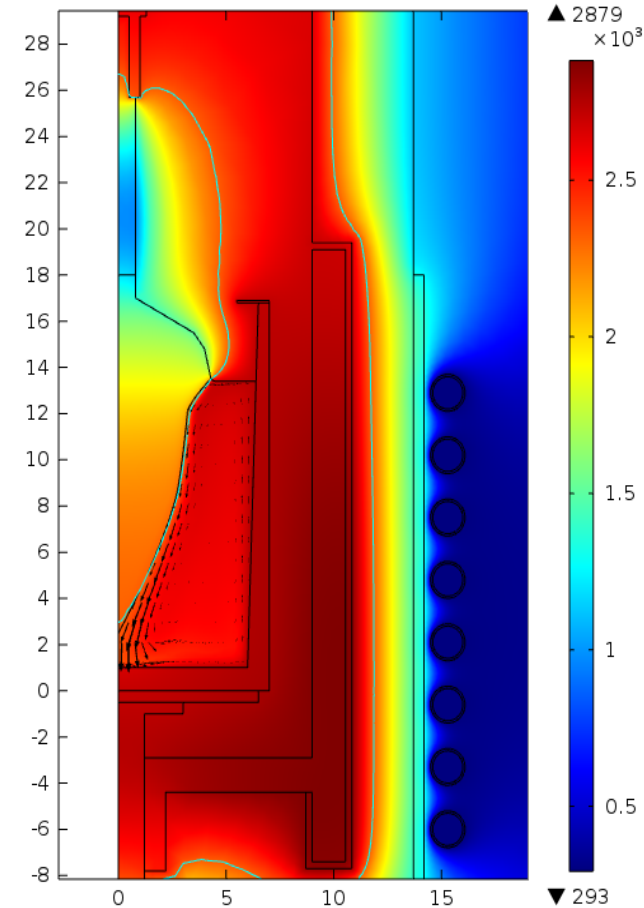
**To be understood as infinitely replicable for other technological fields.**

## Adequation to the call:

**“The environment should contain a suite of integrated and interoperable apps that combine existing materials models and databases of materials properties in a standardised manner”**

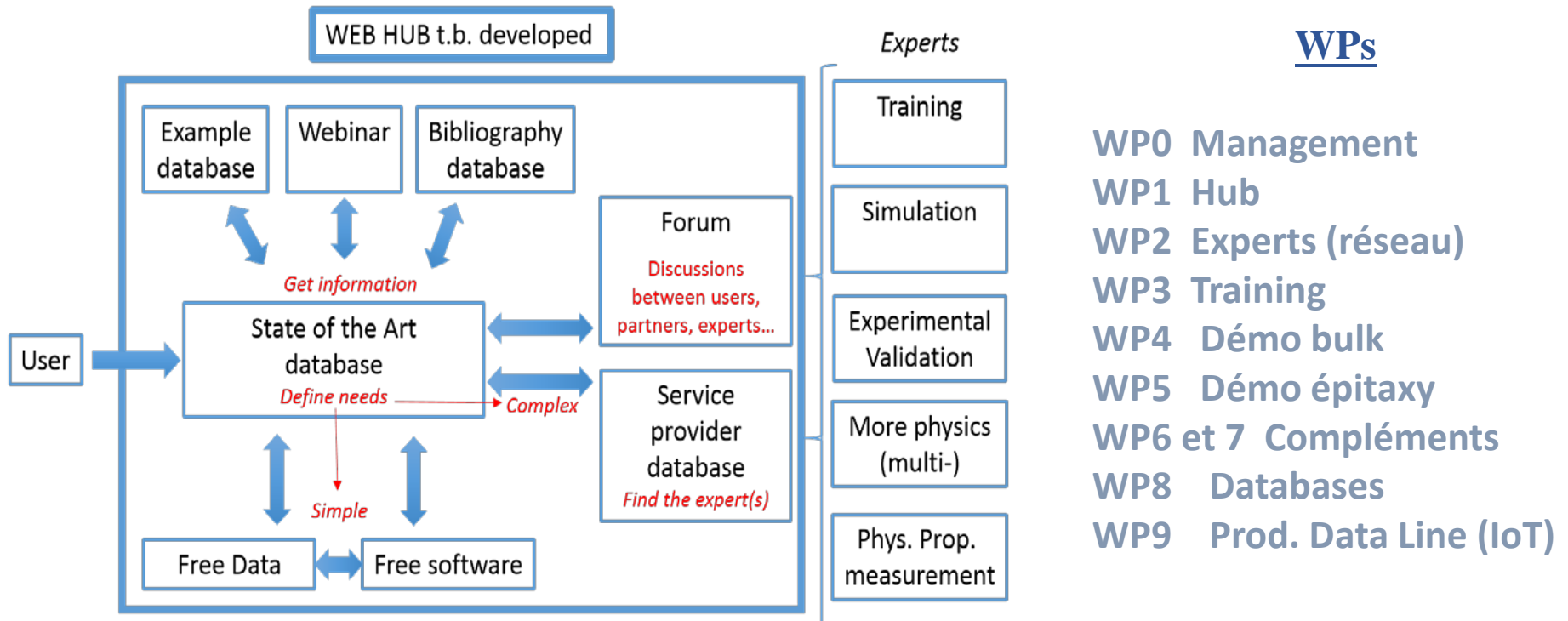
**“Apps should be developed that will enhance the ability for manufacturing companies (end-users) to do an effective search of numerical tools and/or providers of numerical simulations”**

**“Applications should aim to improve decision making on the level of differentiating materials and processes”**



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## Chart of the planned web based marketplace hub



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## 5 European countries.

- 5 SMEs: France, Poland
- 8 Academics : France, Germany, Bulgaria, Poland, Romania
- E-MRS

Country	Participant legal name	Name	First name	Position	Main role in the consortium
France	Grenoble INP-SIMAP	Duffar	Thierry	Professor	Coordinator Crystal growth simulation Experiments Thermodynamics simulation
France	CNRS-ICMCB	Velazquez	Matias	Researcher	Crystal growth experiments
Germany	Fraunhofer Institute for Integrated Systems and Device Technology (IISB)	Seebeck	Jan	Researcher	Methodology Development of dedicated software
Germany	Leibniz Institute for Crystal Growth (IKZ)	Miller	Wolfram	Researcher	Numerical modelling on different scales: atomic to industrial scale Setup of database for material properties
Poland	Institute of Physics, Polish Academy of Sciences (PAS)	Krukowski	Stanislas	Professor	Simulation of Molecular Beam Epitaxy
Romania	West University of Timisoara (WUT)	Vizman	Daniel	Professor	Simulation of bulk crystal growth Development of software
Bulgaria	Bulgarian Academy of Science (BAS)	Tonchev	Vesselin	Professor	Methodology Simulation at nano-micro scale
Romania	Politehnica University Timisoara (PUT)	Barvinschi	Florica	Ass. professor	Simulation of crystal growth phenomena
France	Cristalinnov	Cabanes	Hugues	Engineer	Quartz crystal growth
France	Inopro	Rouch	Hervé	Company Director	Numerical modelling of processes
France	Eurorad SA	Kazandjian	Anne	Company Director	Semiconductor crystal growth
France	Le Rubis SA	Barthalay	Nicolas	Head of R&D	Sapphire crystal growth
Poland	TopGaN	Leszczynski	Michal	Company Director	Technology of nitride LDs and LEDs
France	European Materials Research Society (EMRS)	Siffert	Paul	Director	Communication

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**Previously: Submitted but not selected in 2016 (NMBP-25)**

**Submission opens: October 2018**

**Duration: 42 months**

**€ + 5 Millions Euros**

**Planning: (thanks to ANR financial support)**

**March 2018: plenary meeting- partners, project engineers, NCP  
project definition (call, partners, tasks, deadlines)**

**June 2018: dedicated seminars**

**Mid-september 2018 : first draft**

**Looking for a consultant company to  
help us writing (then managing) the  
project**

**LOOKING FOR COMPANY  
SUPPORT**