



# Exascale: New Frontiers 2020

Marie-Christine Sawley  
DCG-IPAG Europe, Exascale Lab Paris

# Data Center Group

*Defining and leading an open data center, cloud computing, and connected systems infrastructure that will connect and enrich the lives of every person on earth through seamless and pervasive computing.*



Servers

Network

Storage

Software



# INTEL LABS

Deliver breakthrough innovations to fuel Intel's growth and technology leadership



## COLLABORATE FOR RESULTS



UNIVERSITIES



GOVERNMENTS



INDUSTRY

## KEY RESEARCH FOCUS AREAS



USER EXPERIENCE



ARCHITECTURE AND DESIGN



SYSTEMS AND SOFTWARE



SECURITY AND PRIVACY



INTEGRATED COMPUTING

## ADDITIONAL ORGANIZATIONS

STRATEGY, PLANNING and COLLABORATION



INTEL LABS EUROPE  
*Sustainable Intelligent Systems*



INTEL LABS CHINA  
*China Tech Ecosystem*



# Intel Labs Europe NETWORK

## NORTHERN IRELAND

- Intel Mobile Cloud Computing Lab Belfast

## IRELAND

- Intel Security (McAfee) Lab Cork
- Intel (IOT Ignition) Open Lab Lixlip
- Innovation Open Lab (Cloud and IOT Systems Research Labs) Lixlip
- Intel Educational Research Lab Lixlip
- Innovation Value Institute Maynooth
- Intel Embedded Lab Shannon

## FRANCE

- Exascale Computing Research Center Paris
- Intel System Modeling and Simulation Center Nantes
- Intel MCG Smartphone & Tablet Labs Toulouse and Nice
- Intel Open Source Technology Center Montpellier
- Intel Mobile Communications Sophia Antipolis
- Intel Wireless Certification Lab Sophia Antipolis
- WPRD NFC Wireless Research Lab Aix-en-Provence

## SPAIN

- Intel and BSC Exascale Laboratory Barcelona
- Intel New Devices Lab Seville

## ENGLAND

- Intel Mobile IP Lab Swindon
- Intel Wearable IP Lab Swindon
- Intel High Performance Computing Lab Swindon
- Intel (IOT Ignition) Open Lab Swindon
- Intel fasterLAB Winnersh
- Intel Open Source Technology Center London
- ICRI for Sustainable Connected Cities London
- Intel Digital Communications Lab London
- Intel Graphics and Media Lab Egham and Bristol
- Intel Mobile (GPS/GNSS) Lab Davenport
- Intel Security (McAfee) Lab Aylesbury and Brighton
- Intel and BT Co-Lab Ipswich
- Intel CSIG Network Infrastructure LAB Bath

## SWEDEN

- Intel Advanced Rendering Technology Lund
- Intel (IOT Ignition) Lab Stockholm
- Intel Simics Center and IOT Ignition Lab Stockholm

## DENMARK

- Intel Mobile Communications Aalborg

## NETHERLANDS

- Intel VIED Center Eindhoven

## BELGIUM

- ExaScience Lab Leuven
- Intel Communications Infrastructure Solutions Lab Kortrijk

## AUSTRIA

- Intel Mobile Communications Linz and Villach

## SWITZERLAND

- CERN openLab Geneva

## GERMANY

- ExaCluster Laboratory Jülich
- Intel Mobile Communications Dresden, Duisburg, Munich, Nuremberg, Regensburg, Ulm
- ICRI for Secure Computing Darmstadt
- Intel Visual Computing Institute Saarbrücken
- Automotive Innovation & Product Development Center Karlsruhe
- Intel Debugger Tools Lab Ulm
- Intel (IOT Ignition) Open Lab Munich

## FINLAND

- Intel Open Technology Center Helsinki
- ICRI for Secure Computing Helsinki
- Intel Research and Development Center Tampere

## RUSSIA

- Intel Simics Technology Center Moscow
- Intel Labs St. Petersburg
- Intel Software Development Lab Nizhny & Novosibirsk

## POLAND

- Intel Technology Center Gdansk

## SERBIA

- Intel VIED Center Belgrade

## ROMANIA

- Intel Software Development Center Bucharest
- Intel Educational Software Development Lab Cluj-Napoca

## TURKEY

- Intel (IOT Ignition) Open Lab Istanbul

## ISRAEL

- Intel Israel Open Innovation Center Petach Tikva
- ICRI for Computational Intelligence Haifa

Harnessing the collective value of  
Intel's R&D investments in Europe

Last Update : March 2015

Intel Labs Europe is a dynamic environment – currently 56 Locations, 5,200 BB RD&I Professionals in the Network.



# Intel® Parallel Computing Centers

- Modernizing applications to increase parallelism and scalability.
- Announced October '13 with five collaborators and an open call to solicit additional collaborators
- Quality of proposals enabled scaling:
  - approaching ~50 WW
  - ~16+ in Europe\*
  - 10+ new in 2014/15 (Europe)

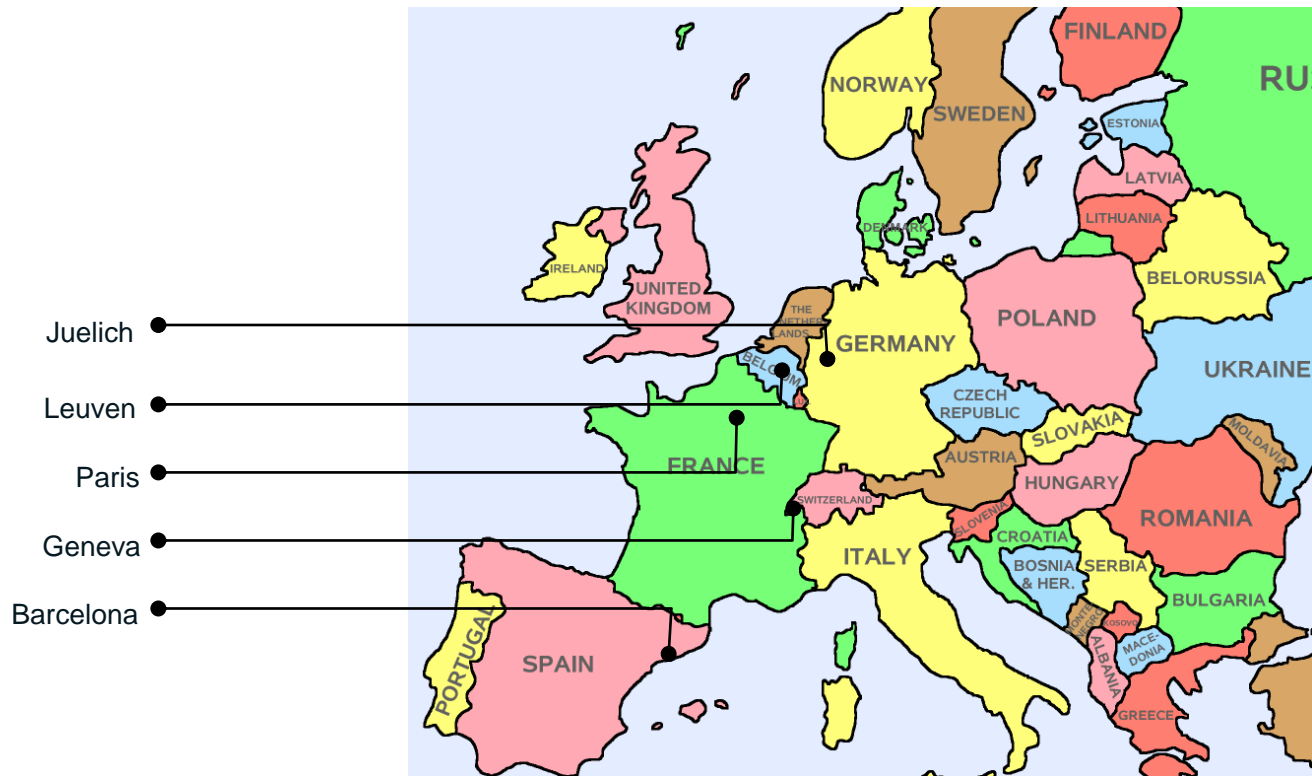


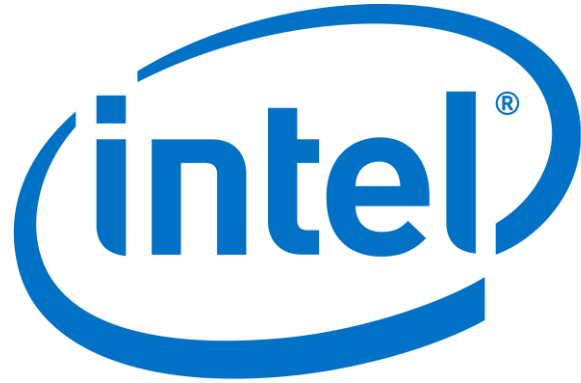
[software.intel.com/ipcc](http://software.intel.com/ipcc)

\*Other brands and names may be claimed as the property of others



# Innovation Pathfinding Architecture Group Europe Locations





Look Inside.™