



# Celtic-Plus

## EUREKA Innovation Days

24th May 2018, Helsinki

Pitch of the Project Proposal

### QuickAIDive



# UAB

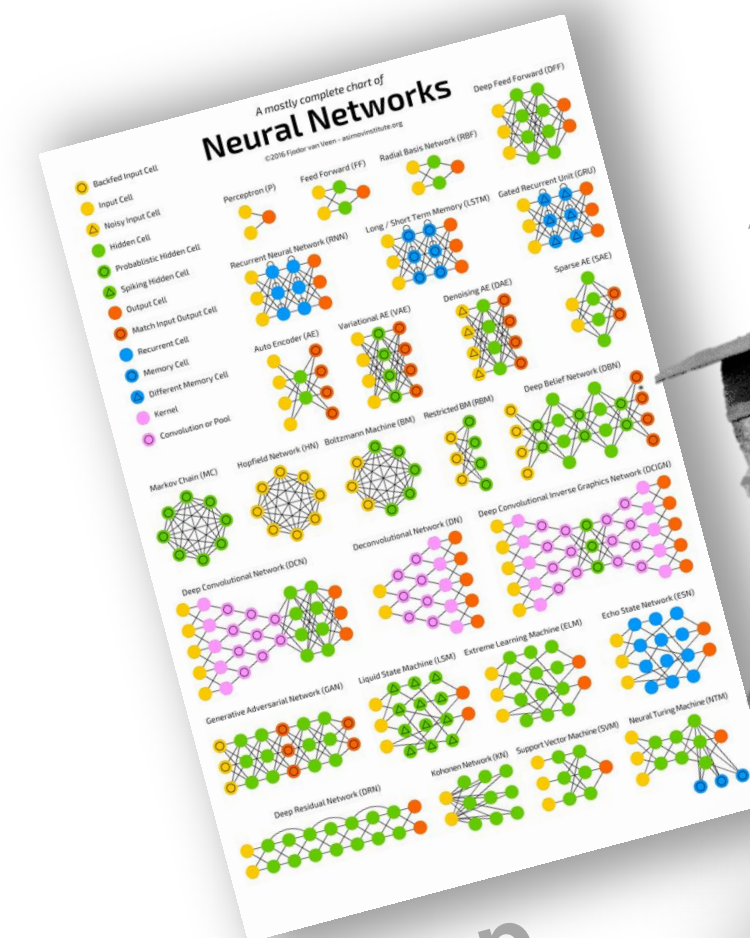
Universitat Autònoma  
de Barcelona

David Castells-Rufas  
Universitat Autònoma de Barcelona  
david.castells@uab.cat

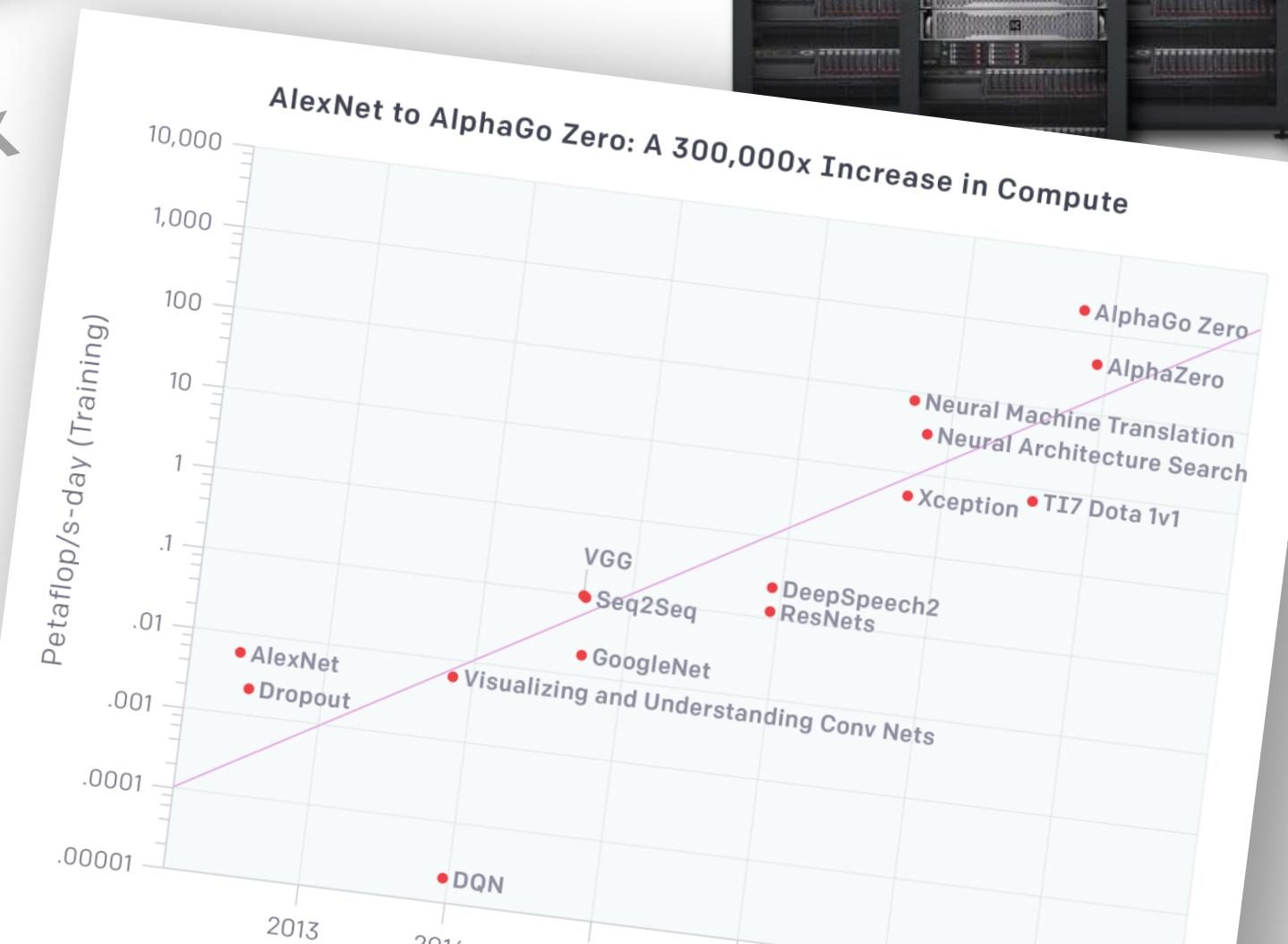


# Easy AI entry for industry

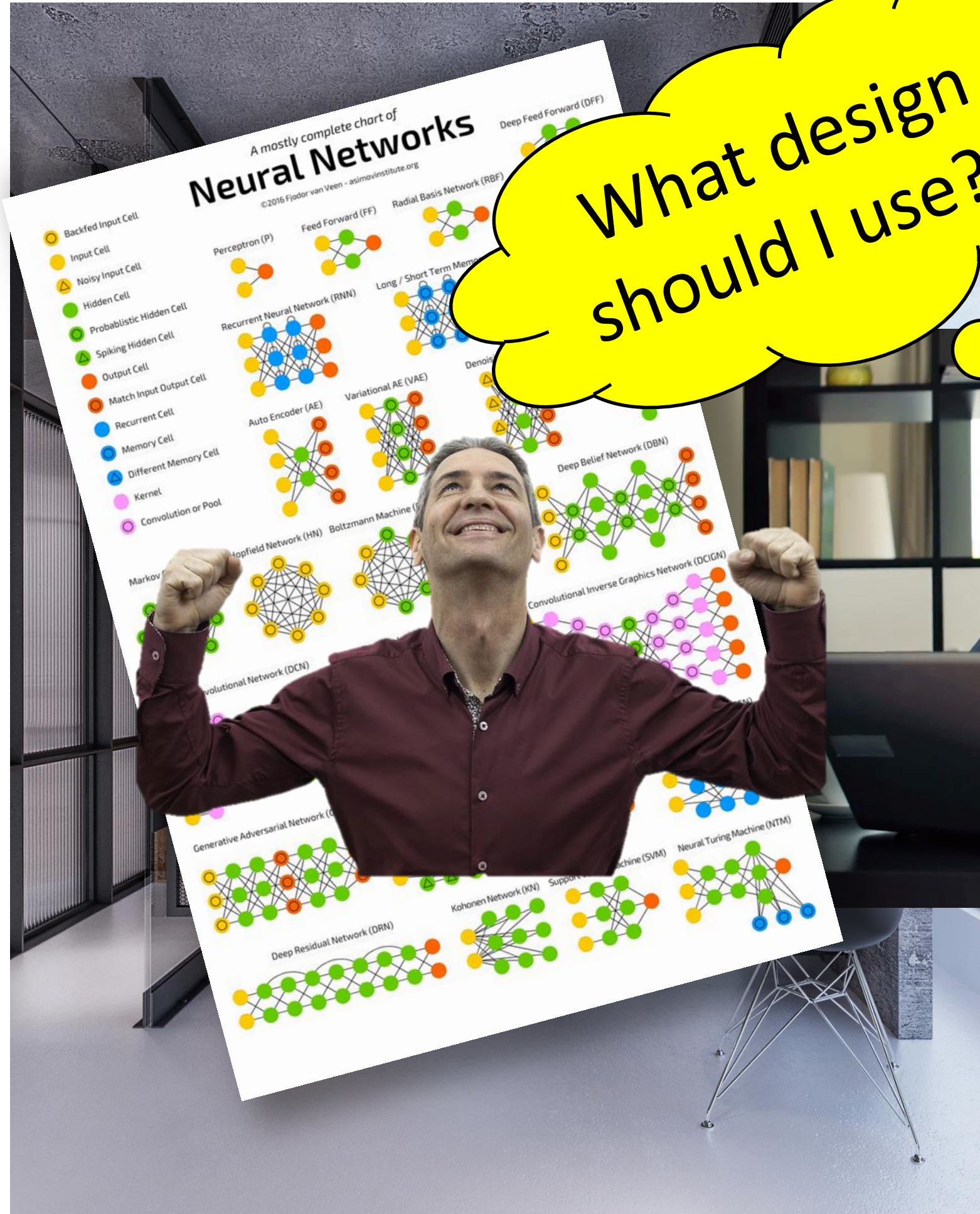
- Many Industries and SMEs already see the need of Deep-Learning
- Roadblocks for adoption
  - Lack of experts
  - Design Complexity
  - Computing Power (CPU years)
- Benefits for the final user:
  - overcome the roadblocks
- Why you should join?
  - Academia: Improve the SoA on Deep-Learning
  - Industry & SMEs: Benefit from existing knowledge and future developments



Current Deep  
Neural Network  
architectures



# Idea



What design should I use??

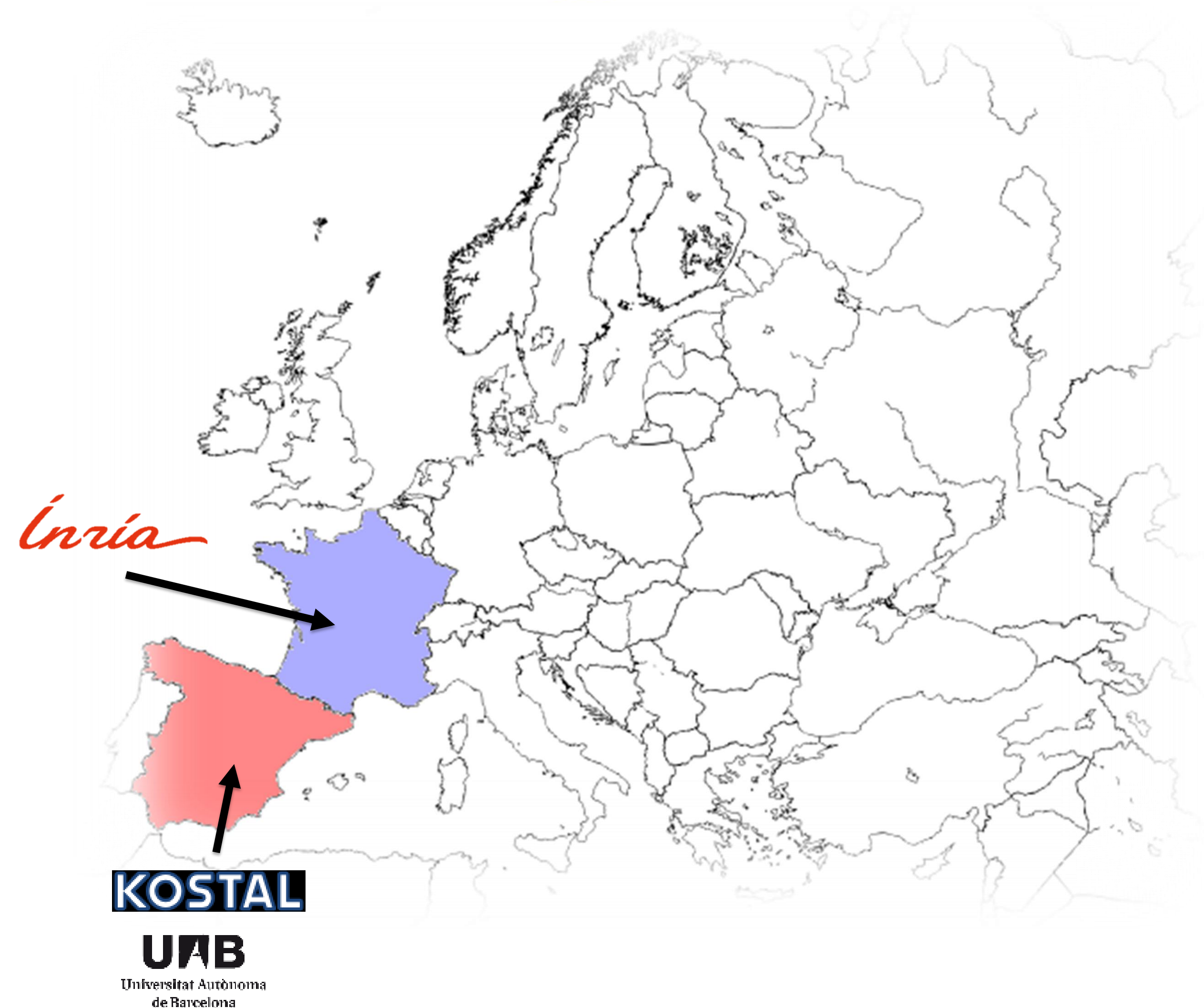
Do I have to hire a DeepLearning Expert ??

Should I buy a cluster to train the network?

Cloud Based Platform

# Partners

- Spain
  - UAB (University)
  - KOSTAL (Industry)  
Automotive Components
- France
  - INRIA / ENS-Lyon (University)
- Looking for:
  - Building Wider consortium
  - Cloud providers
  - More Deep-Learning R&D
  - More Industrial Beneficiaries of the technology



# Contact Info

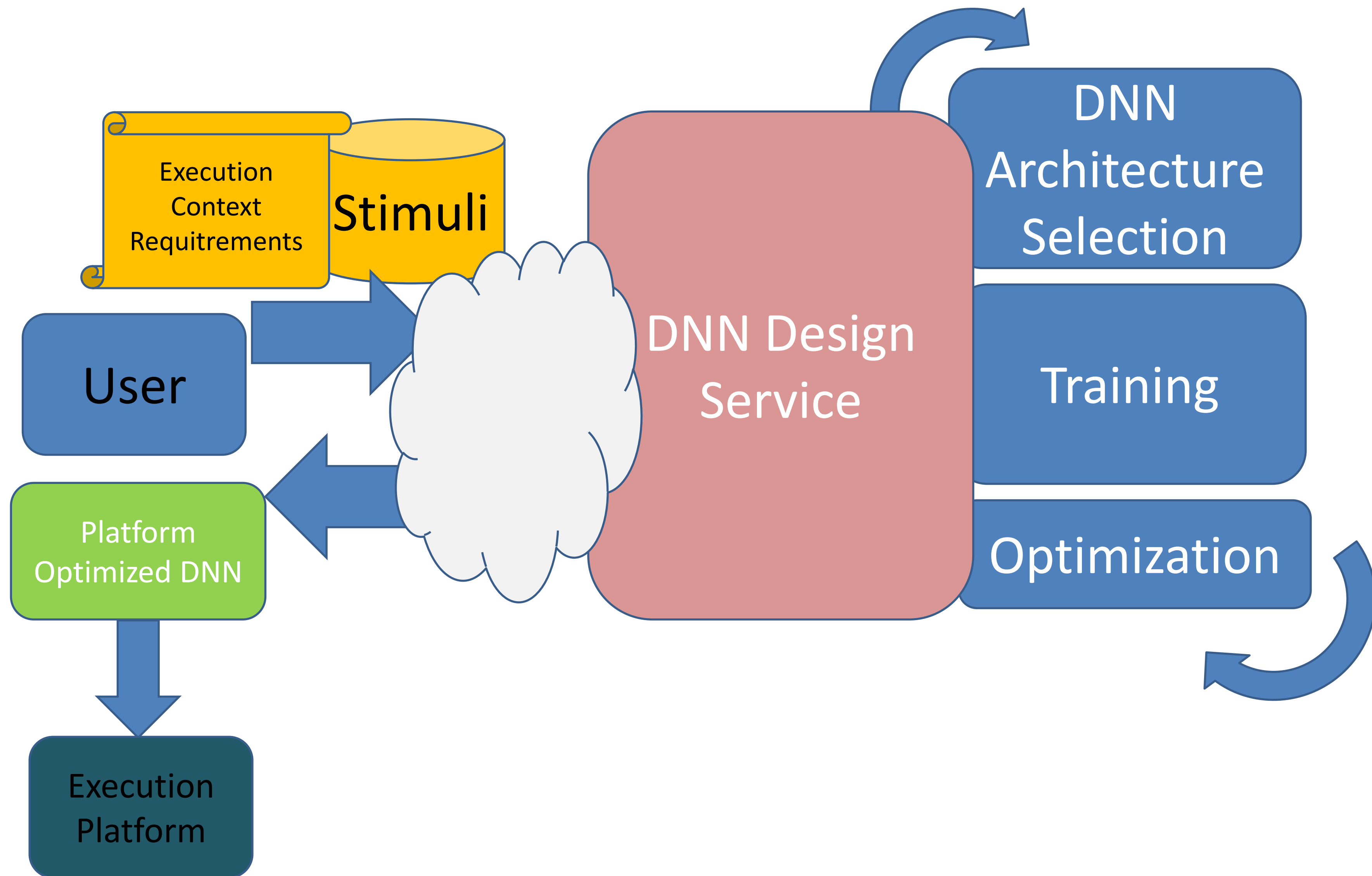
**For more information and for interest to participate please contact:**

David Castells-Rufas  
david.castells@uab.cat  
+34 93 581 3358  
QC2034, Edifici Enginyeria,  
Campus UAB, 08193 Bellaterra, Spain  
<http://grupsderecerca.uab.cat/cephis/>



**EXTRA SLIDES**

# The Service



# Why Heterogeneous Cloud?

- Performance
- **Energy Efficiency**

## Microsoft: FPGA Wins Versus Google TPUs For AI

GUEST POST WRITTEN BY  
Karl Freund

Karl Freund is Sr. Analyst, Machine Learning and HPC, Moor Insights & Strategy



At the recent Hot Chips conference, three of the world's largest datacenter companies detailed projects that exploit Field Programmable Gate Arrays (FPGAs) as accelerators for performance-hungry datacenter applications, particularly for Machine Learning. While Xilinx and Intel (Altera) have long talked about the potential for their technologies to change the datacenter landscape, broad adoption has remained elusive, in part due to the challenges of FPGA development. Specifically, Amazon, Baidu, and

org/news/microsoft-launches-fpga-powered-machine-learning-for-azure-c

Home / News / Microsoft Launches FPGA-Powered Machine Learning for Azure Customers

## Microsoft Launches FPGA-Powered Machine Learning for Azure Customers

Michael Feldman | May 8, 2018 07:29 CEST



At the Microsoft Build conference on Monday, the company kicked off a new cloud offering that would provide machine learning resources to cloud customers using Intel FPGA-accelerated servers.

"I think this is a first step in making the FPGAs more of a general-purpose platform for customers," said Mark Russinovich, chief technical officer for Microsoft's Azure cloud computing platform. The technology is being offered as "preview," which apparently means only a limited set of capabilities and allocations are available. Also, at this point, only customers with accounts in the East US 2 region will be able to access the platform.

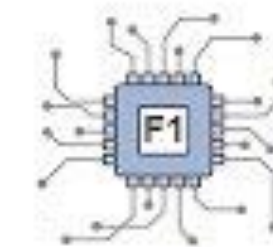
This represents the commercialization of Microsoft's Project Brainwave, an FPGA-based machine learning platform the company developed over the past year. The software-maker first announced the platform last August at the Hot Chips conference, saying it would be able to provide real-time AI for inferring deep neural networks.

## Deep Dive on Amazon EC2 F1 Instance

### FPGA-Accelerated Computing on AWS

David Pellerin, Amazon Web Services

May 16, 2017



Project Brainwave board. Source: Microsoft



Highlighted news

Google Cloud and Atos form a global partnership to deliver secure hybrid cloud, machine learning and collaboration solutions to the enterprise

[READ MORE ABOUT THE PARTNERSHIP](#)

© 2017 Amazon Web Services, Inc. or its affiliates. All rights reserved.

