



PCN - Horizon2020

# HORIZON 2020

LE PROGRAMME DE RECHERCHE ET  
D'INNOVATION DE L'UNION EUROPÉENNE

## Big Data 2017 calls

*ICT-14; ICT-15 ; ICT-16, ICT-17 and others*

January 06th, 2017, Paris

Brokerage

# General information



*SAFRAN SA -SafranTech*  
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Area of interest	Choose Y or N
<i>ICT-14: Big Data PPP: Cross-sectorial and cross-lingual data integration and experimentation</i> <b>A) Data integration activities</b>	N
<i>ICT-14: Big Data PPP: Cross-sectorial and cross-lingual data integration and experimentation</i> <b>B) Data experimentation incubators</b>	N
<i>ICT-15-2016-2017: Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven innovation</i> <b>Large Scale Pilot actions</b>	Y
<i>ICT-16-2017: Big data PPP: research addressing main technology challenges of the data economy</i> <b>cross-sector and cross-border problems or opportunities of clear industrial significance.</b>	Y
<i>ICT-17-2016-2017: Big data PPP: Support, industrial skills, benchmarking and evaluation</i> <b>Benchmarking action</b>	N
<i>Others:</i>	N

# Competencies



- *Organisation competencies :*
  - **Safran is an international high-technology group and tier-1 supplier of systems and equipment in its core markets of Aerospace, Defense and Security.**
  - Operating worldwide, Safran has over 70,000 employees and logged sales of 17.4 billion euros in 2015. Safran undertakes extensive Research & Development programs to keep pace with its fast-evolving markets, including expenditures of over 2 billion euros in 2015.
  - **SafranTech** is the corporate research center of Safran Group. Safran Tech was founded to pool the Group's different areas of expertise and foster breakthrough technologies. It houses nearly 450 researchers from different countries, working on key disciplines such as advanced aerospace systems, materials, processes, information processing and sensors.
- *Organisation experience in the European project*
  - Safran is involved in numerous European Research and Innovation projects in Aerospace, Defense and Security domains.
- *The skills you can bring*
  - Regarding H2020 Big Data 2017 calls, SafranTech can bring :
    - High level applied research expertise in Image, Signal and Data processing, Machine Learning Algorithms and their applications to Aerospace and Defense systems and equipment, to Manufacturing and Industry 4.0
    - End-user applications and databases in Industry, Aerospace and Defense domains

# Project idea (ICT-16)



- *Describe your project idea :*
  - *Advanced Deep Learning approaches have shown outstanding performances for many complex problems. Nevertheless, for many critical applications this is not enough: other key performance issues are mandatory :*
    - *These solutions must handle unknown/unexpected inputs or detect very rare critical events*
    - *They must be able to handle explicit uncertainties or quality information on the input data in order to help evaluate risks and mitigate them*
    - *Underlying models or decision logics must be understandable by experts or users*
    - *They must take benefit of all the already existing a priori knowledge (physical laws, rules, ...) in order not to violate them or to be able to reach higher range of performances ( $10^{-3}$  ...  $10^{-6}$  error rate)*
    - *They must be “fair” and unbiased*
  - *We propose a project dedicated to the development of mathematical basis, new algorithms and methodologies able to address these performance issues, with potential applications on use-cases provided by domains such as Aerospace or Healthcare, Social Science, ...*
- *List of the complementary skills you need for your consortium :*
  - *Academic partners (Machine Learning, Knowledge management, Applied Mathematics, ...)*
  - *Use-case and database providers in Healthcare, Social Science, ...*