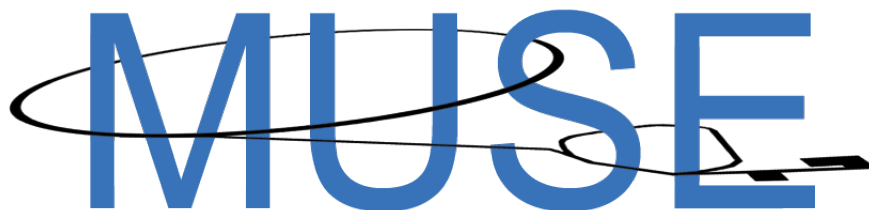


# Esperienze in H2020

## MSCA-RISE: MUSE

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MUSE



Giornata informativa bandi H2020  
LNF, 25 maggio 2016

# RISE: quadro generale

- ✓ H2020 EU Research and Innovation program
  - Excellent Science
  - Marie Skłodowska Curie Actions
  - RISE (Research and Innovation Staff Exchange)
  
- ✓ MSCA: sviluppo di carriera e formazione dei ricercatori
  - incremento competenze
  - mobilità internazionale ed intersettoriale
  - qualsiasi campo di ricerca (approccio “bottom-up”)
  
- ✓ RISE: promuove collaborazioni internazionali/intersettoriali tramite scambio di personale
  - co-finanziamento di distacchi temporanei di personale tra istituti
  - obiettivi: trasferimento delle competenze
  - nuove reti per collaborazioni future

# RISE: regole generali

Requisiti per ammissibilita`:

- ✓ almeno 3 istituti partecipanti in 3 diversi Paesi
  - se tutti in EU (MS) o Paesi associati (AC): sia ricerca che industria
  - se sono coinvolti anche organizzazioni non-UE (TC): OK anche stesso settore
- ✓ personale distaccato: ricercatori (o associati), tecnici, amministrativi
  - al personale distaccato deve essere garantita la reintegrazione
- ✓ per i distacchi (o *secondment*):
  - durata per persona: 1–12 mesi (suddivisibili su piu` viaggi)
  - numero massimo per progetto: 540 mesi-persona
  - MS/AC ↔ TC, ricerca ↔ industria

Progetto tipo:

- ✓ 48 mesi
- ✓ 4–7 organizzazioni coinvolte tra ricerca, industria (in particolare SME!)
- ✓ 200–400 mesi-persona

# RISE: finanziamento

Il contributo finanziario e` calcolato sulla base dello “unit cost”:

4500 Euro per ogni mese di secondment **pianificato e implementato**

Marie Skłodowska-Curie Action	Staff member unit cost [per person-month of secondment] [EUR]	Institutional unit cost [per person-month of secondment]	
		Research, training and networking costs [EUR]	Management and indirect costs [EUR]
RISE	2,000	1,800	700

**Questa quota DEVE obbligatoriamente essere spesa per il secondment**

Corrisponde ad un contributo di ~ 70 Euro per ogni giorno di secondment (i.e. missione)

# Perche' RISE

Call adatta per le attivita` INFN su esperimenti al di fuori dall'Europa

- ✓ Si puo` viaggiare verso enti di ricerca (KEK, IHEP, FNAL...)
- ✓ Valutazione basata su tre criteri, con diverso peso:
  - 50% **Eccellenza** (**qualita` della ricerca**, **aspetti innovativi**, interazione tra i partecipanti)
  - 30% **Impatto** (incremento/trasferimento competenze, nuove collaborazioni, **dissemination**)
  - 20% **Implementazione** (piano di lavoro, strutture e procedure utilizzate)

La ricerca di base, qualificata e innovativa, esiste gia`. Occorre:

- costruire una solida e convincente rete di collaborazione
- pianificare strategie per lo sviluppo e il trasferimento delle competenze

# MUSE: ideazione

Muon campus in US and Europe contribution

- ✓ Istituto ospitante: Fermilab (US)
- ✓ Focus: attività connesse al “Muon Campus”, Mu2e e Muon g-2
- ✓ Partner UE di base: istituti europei coinvolti nei due esperimenti

Istituto/Universita`	Esperimento	N.ro ricercatori
INFN	Mu2e	30
	Muon g-2	25
UCL	Muon g-2 (Mu2e)	7
Liverpool	Muon g-2 (Mu2e)	15
HZDR	Mu2e	2

- 😊 Due esperimenti challenging di alta precisione, con un filo comune
- 😞 Squilibrio di personale tra gli istituti

# MUSE: definizione del partenariato

Ideazione circa tre mesi prima della scadenza della call

Buona parte del tempo utilizzato per cercare di inserire partner industriali e attività interdisciplinari

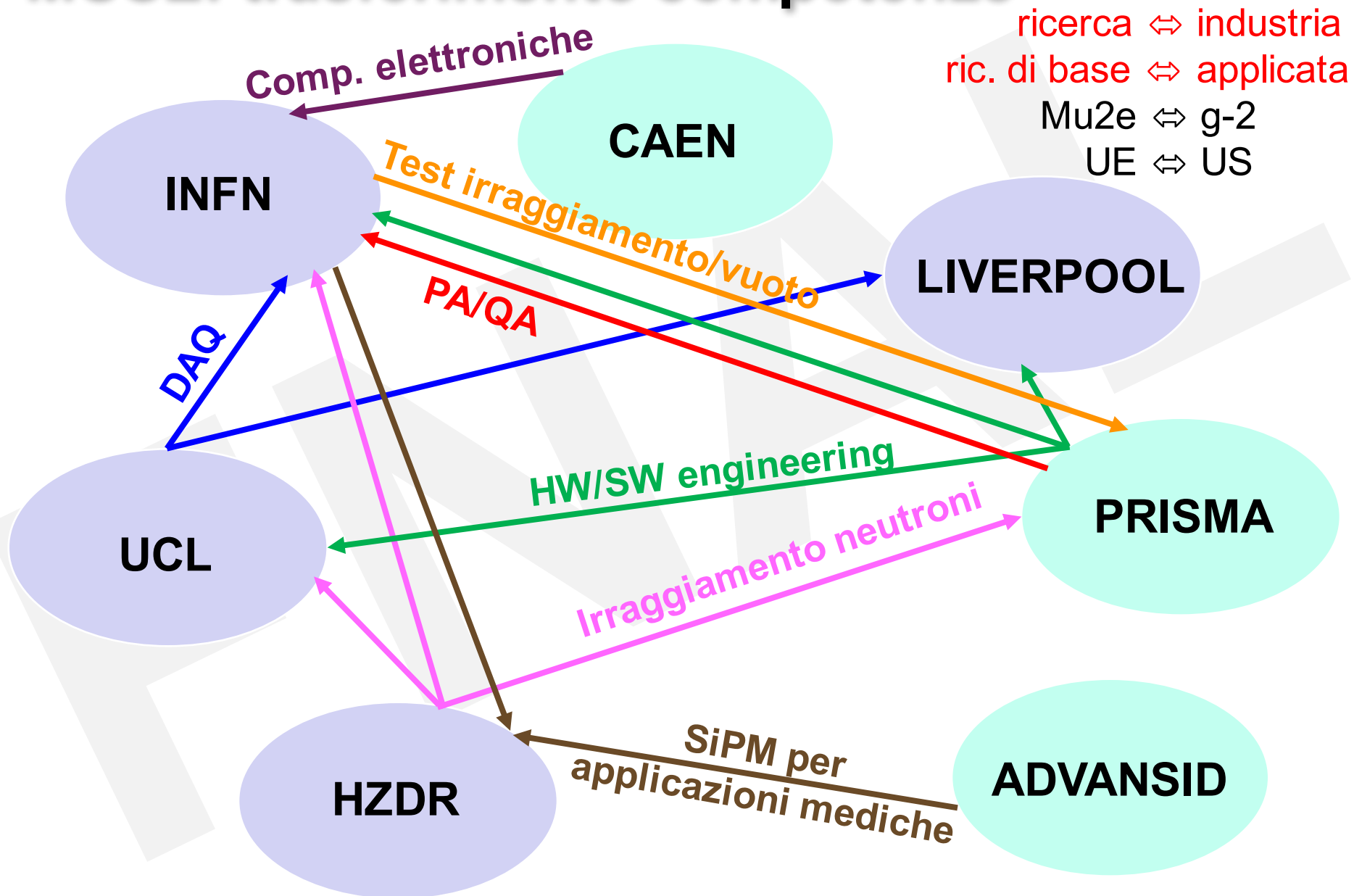
Alla fine:

➤ 3 SME

PRISMA	GR	Sistemi elettronici per usi vari
AdvanSid	IT	Fotomoltiplicatori al silicio
CAEN	IT	Apparecchiature elettroniche

➤ Applicazioni di fisica medica (HZDR)

# MUSE: trasferimento competenze



# Scrittura della proposta

Partire per tempo

Studiare con attenzione la documentazione della call scelta

Dare importanza a tutte le sezioni: Excellence, Impact, Implementation

Rispondere a tutte le richieste delle sezioni del template

**3.2 To develop new and lasting research collaborations, to achieve transfer of knowledge between research institutions and to improve research and innovation potential at the European and global levels**

Please develop your proposal according to the following lines:

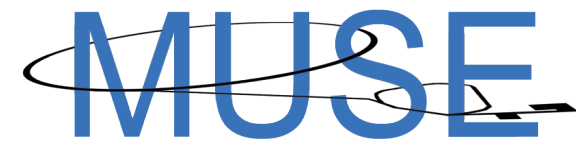
- *Development of new and lasting research collaborations resulting from the intersectoral and/or international secondments and the networking activities implemented.*
- *Self-sustainability of the partnership after the end of the project.*
- *Contribution of the project to the improvement of the research and innovation potential within Europe and/or worldwide.*

Non trascurare:

- Gender issues
- Communication/dissemination
- Outreach

Fate leggere la proposta a qualche collega (possibilmente con esperienza come valutatore)

# Il progetto MUSE



- ✓ Proposta sottomessa alla call H2020-MSCA-RISE-2015 (Budget: 80 MEuro)
- ✓ Istituto coordinatore: INFN (S.G.)
- ✓ Istituto ospitante: Fermilab
- ✓ Partecipanti EU:
  - 4 enti di ricerca [INFN (IT), UCL (UK), Univ. of Liverpool (UK), HZDR (DE)]
  - 3 SME [PRISMA Electronics (GR), CAEN (IT), AdvanSid (IT)]
- ✓ Circa 70 ricercatori coinvolti nel progetto
- ✓ Secondment totali: 385 mesi-persona
- ✓ Finanziamento totale: 1.7 MEuro (1.1 MEuro all'INFN)
- ✓ **APPROVATO!** Durata progetto: 1-1-2016 → 31-12-2019

# MUSE: valutazione

## Criterion 1 - Excellence

*Strengths:* Score: 4.50 (Threshold: 0/5.00 , Weight: 50.00%)

- + *The proposed project is ambitious and challenging dealing with the precise measurement of the anomalous magnetic moment of the muon and the search for charged lepton flavour violating decays of the muon. The proposal concerns participation in high quality experiments at the Muon Facility at Fermilab and aims at extending the state-of-the art in this field.*
- + *The scientific rationale behind the proposed work and the specific research goals of the consortium have been clearly described. The project as a whole is truly innovative, and also the specific tasks of the project contain novel and challenging approaches.*
- + *The proposal describes several interdisciplinary aspects of the project, with interesting medical applications.*
- + *The interaction between the participating institutes is of very good quality and is well described in the proposal.*

*Weaknesses:*

- *The involvement of the participating institutes is unbalanced with a significantly stronger involvement of the INFN sections with respect to other institutes.*
- *The proposal does not provide a graphical illustration of the experimental apparatuses of the g-2 and the Mu2e experiments, making it much more difficult to judge the improvements foreseen by the proposed project to the detectors.*

## Criterion 2 - Impact

*Strengths:* Score: 4.70 (Threshold: 0/5.00 , Weight: 30.00%)

- + *The proposal describes in a comprehensive way the several new skills that will open up new career perspectives.*
- + *This RISE action will enhance transfer of knowledge between the European groups and the USA.*
- + *The project will enhance the existing international research collaborations that would then be sustainable beyond the end of the project with the involvement in the Mu2e collaboration.*
- + *A large variety of public outreach activities at the different centres is foreseen, which has to be applauded.*
- + *The dissemination is standard and appropriate.*

*Weaknesses:*

- *There is no significant weaknesses under this criterion.*

# MUSE: valutazione

## Criterion 3 - Implementation

Score: **4.00** (Threshold: 0/5.00 , Weight: 20.00%)

### Strengths:

- + *The structure of the work plan presented is adequate for the proposed project. The resources are well distributed between the various WPs.*
- + *The infrastructure present at the various institutes is perfectly adequate for the project with high quality Institute environment.*
- + *There is a very good complementarity of competences and experience between the various participating institutes.*
- + *A risk analysis plan has been presented including foreseen mitigations.*

### Weaknesses:

- *The g-2 data taking is scheduled to start in mid 2017: given this, some of the deliverables in WP3 and WP4 are scheduled to arrive late.*
- *This project has two boards, a management board and a scientific board with a significant overlap of duties. It is not clear who manages the day to day operation of the project and acts as spokesperson.*

# Per concludere...

- Call RISE molto adatta per le attività INFN in laboratori al di fuori dell'UE
- Deadline della prossima call tra circa un anno
- Occorre partire per tempo per progetti di questo genere, dove occorre creare nuove collaborazioni e sinergie tra gruppi
- L'ufficio fondi esterni dell'INFN è un valido aiuto, anche durante la stesura della proposta

# RISE: finanziamenti delle call concluse

Anno	Budget	Proposte sottomesse
2014	70 MEuro	203
2015	80 MEuro	363
2016	80 MEuro	367

# RISE: criteri di valutazione

<b>50%</b> Excellence	<b>30%</b> Impact	<b>20%</b> Implementation
<b>Quality, innovative aspects and credibility of the research</b> (including inter/multidisciplinary aspects)	<b>Enhancing research- and innovation-related human resources, skills and working conditions to realise the potential of individuals and to provide new career perspectives</b>	<b>Overall coherence and effectiveness of the work plan</b> , including appropriateness of the allocation of tasks and resources
<b>Clarity and quality of knowledge sharing</b> among the participants in light of the research and innovation objectives	<b>To develop new and lasting research collaborations, to achieve transfer of knowledge</b> between research Institutions and to improve research and innovation potential at the European and global levels	<b>Appropriateness of the management structures and procedures</b> , including quality management and risk management
<b>Quality of the interaction between the participating organisations</b>	Effectiveness of the proposed measures for <b>communication and results dissemination</b>	<b>Appropriateness of the institutional environment</b> (infrastructure)
		<b>Competences, experience and complementarity</b> of the participating organisations <b>and institutional commitment</b>