



# Materials Sciences and Analytical Facilities

Call INFRA-2012-1  
FP7 NCP meeting

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# FP6-7 contribution so far to material sciences and analytical facilities

## **(Nano-)Material sciences**

**ANNA (FP6), EUMINAFab, QNano,  
ESMI, NFFA (DS)**

**Imaging, diffraction and  
spectroscopy facilities  
using electrons**

**ESTEEM (FP6)**

## **Neutron and Muon sources and applications (spectroscopy)**

**NMI3, NMI3-II, NeutronSourcesESS (PP),  
ILL 20/20 Upgrade (PP)**

## **Ion beam facilities**

**SPIRIT**

## **Synchrotrons**

**ELISA, ESRF Upgrade (PP),**

## **Lasers and FELs**

**LASERLAB-EUROPE I, II and III  
IRUVX-PP, XFEL (PP)**





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# Nano-scale materials

## (Nano-)Material sciences

ANNA (FP6), EUMINAFab, QNano,  
ESMI, NFFA (DS)

### Integrating Activity topic 21:

**Research infrastructures for integration of processing, analysis and characterisation of nano-scale materials and structures**

- Build on the outcome of the NFFA DS FP7 project
- Integrate nano-science laboratories with large-scale analytical facilities following a *co-location strategy*
- The integrated RIs should include nano-fabrication installations and nano-characterisation facilities, for instance X-ray sources, neutron sources, FELs and advanced modelling simulation





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# Electrons for analytical facilities

**Imaging, diffraction and spectroscopy  
facilities using electrons  
ESTEEM (FP6)**

## Integrating Activity topic 22:

### **Imaging, Diffraction and Spectroscopy using Electrons**

- Build on the successes of ESTEEM
- Further integrate facilities for electron-based analytical approaches
- Look for complementarities with other analytical methods
- Develop the innovative dimension in this S&T field





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# Synchrotrons and FELs

## Synchrotrons and applications

ELISA, ESRF Upgrade (PP),

## Lasers and FELs

LASERLAB-EUROPE I, II and III  
IRUVX-PP, XFEL (PP)

## Integrating Activity topic 23:

### Synchrotron radiation sources and Free Electron Lasers

- Bring together and push for the integration of synchrotron and FEL facilities of pan-European interest
- Propose a self-sustaining strategy for the joint development and usage of the facilities, making the synchrotron and FEL communities work as one in the long-term
- Address user access modalities resulting in a “single entry point” model, suitable for the effective attraction of very diverse research communities to the synchrotron and FEL ones

