

LEB building status

NUSTAR Week 2014

IFIC Valencia, Spain

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FAIR

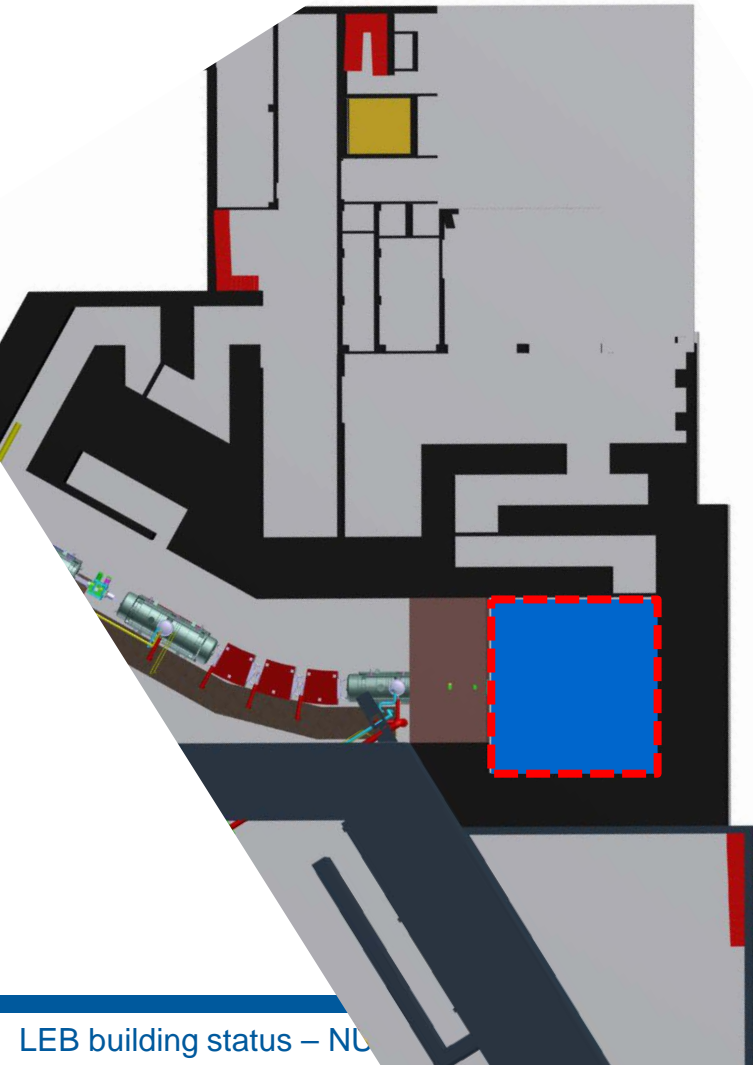


Consequences for experiments:

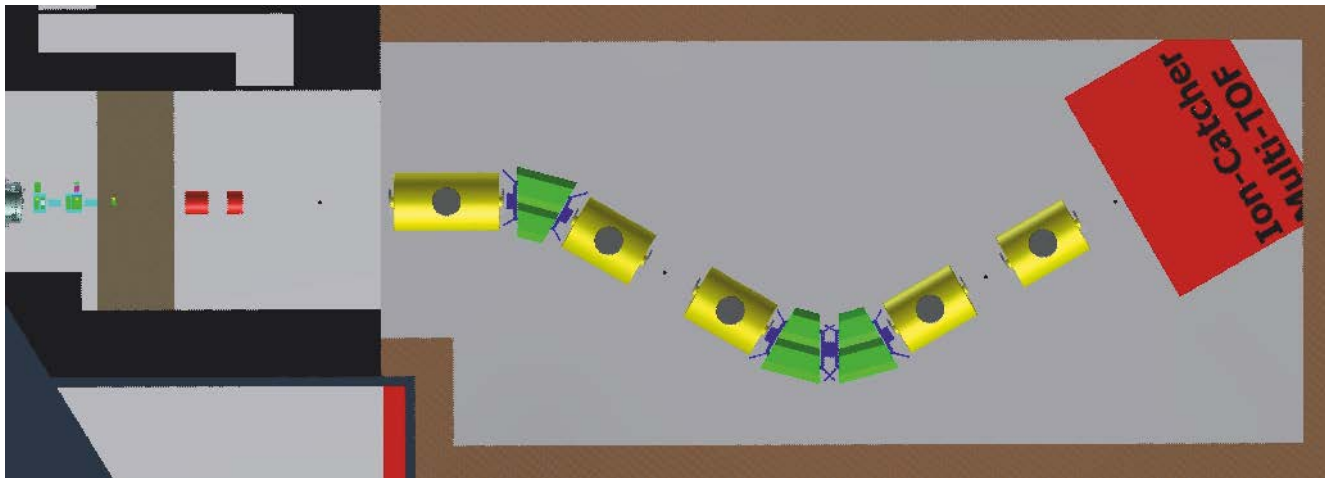
MATS	no beam or setup
LaSpec	no beam or setup
HISPEC	no beam or setup
DESPEC	limited operation



- **no additional multiplet**
 - ⇒ reduced selectivity due to missing optimal slits and ion optics
 - ⇒ **SEVERE BACKGROUND**
(confirmed experimentally April 2014)
- **no combination of equipment possible**
(especially no space for MONSTER neutron detector)
 - ⇒ **LIMITED DIVERSITY**

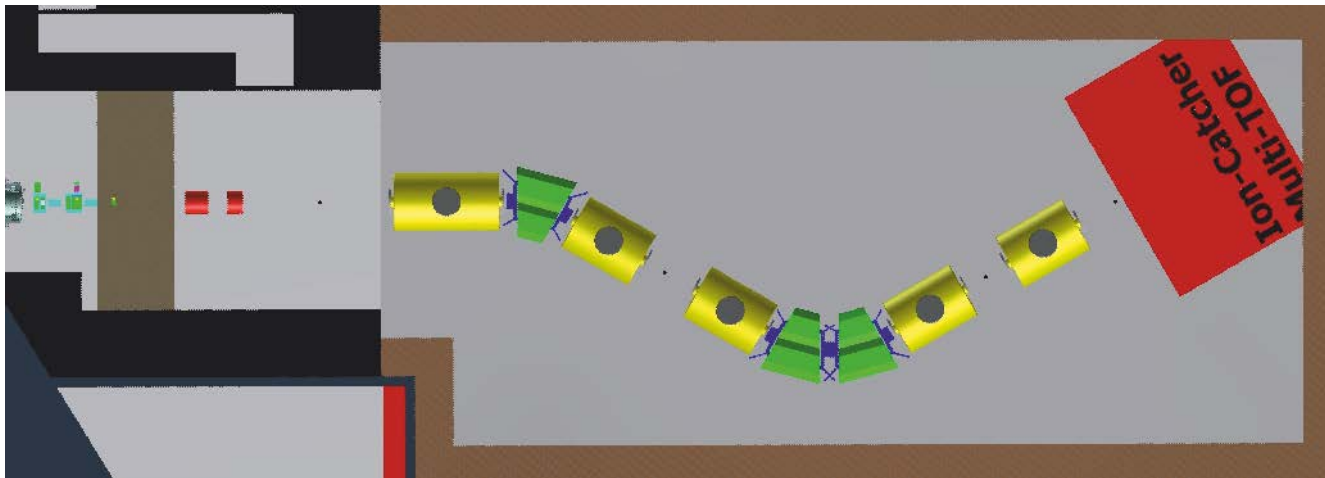


- parameters of dipole magnets fixed
 - reduction of weight expected
 - new design by VECC Kolkata (visit of Dr. P.R. Sarma at GSI in September 2014)
- change request for energy buncher components in preparation
 - cost-neutral change from C-shape to S-shape layout under investigation



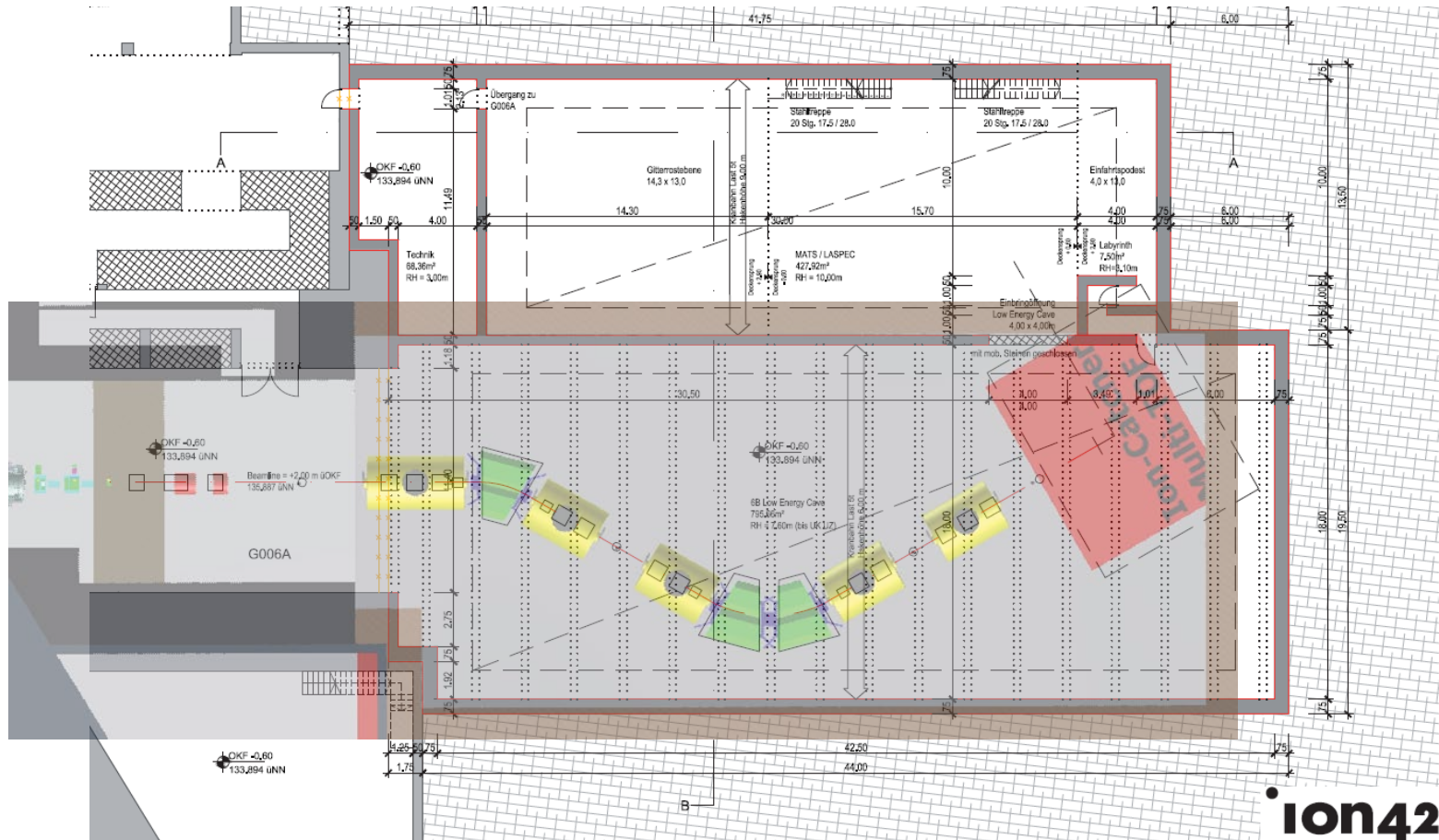
S-shaped energy buncher (dispersion matching to Super-FRS)

- energy buncher multipliers
 - waiting for completion of tendering process for Super-FRS multipliers
 - details of configuration (e.g. steerers) under discussion
- Space-allocation plan
 - requirements of experiments under investigation



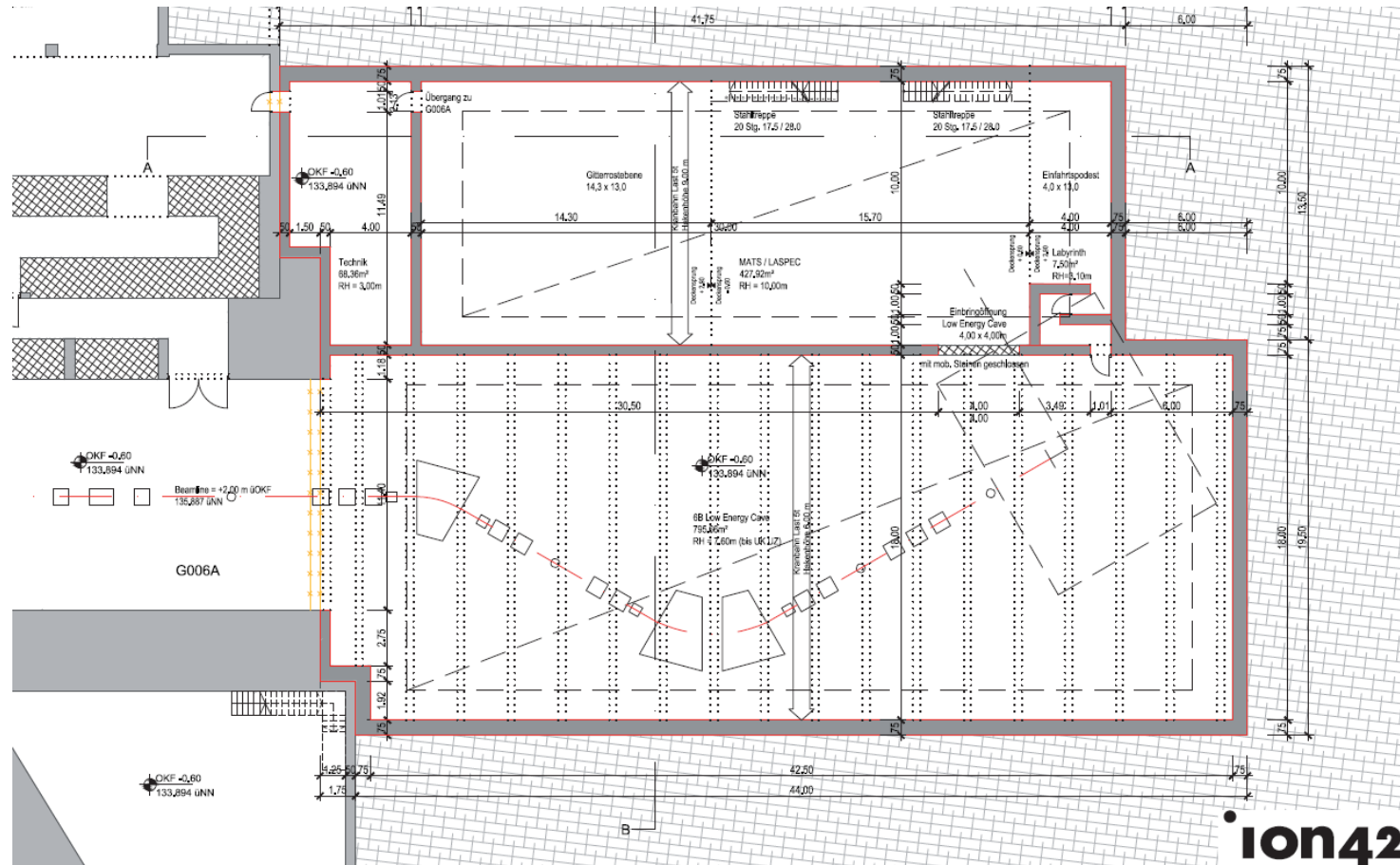
S-shaped energy buncher (dispersion matching to Super-FRS)

Match LEB building to new layout

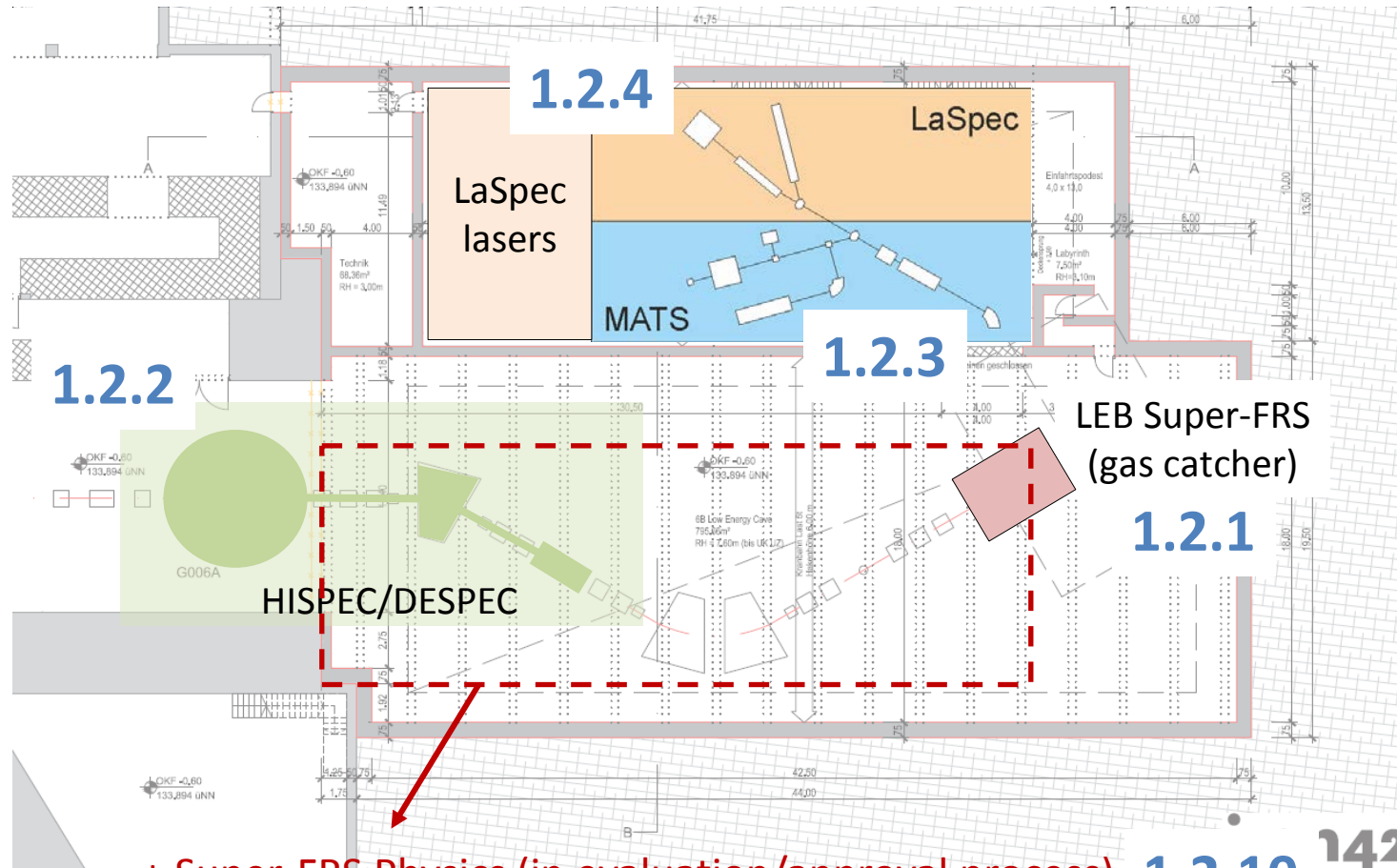


ion42

(2nd architect study – Feb 2014)



ion42



+ Super-FRS Physics (in evaluation/approval process) **1.2.10¹⁴²**

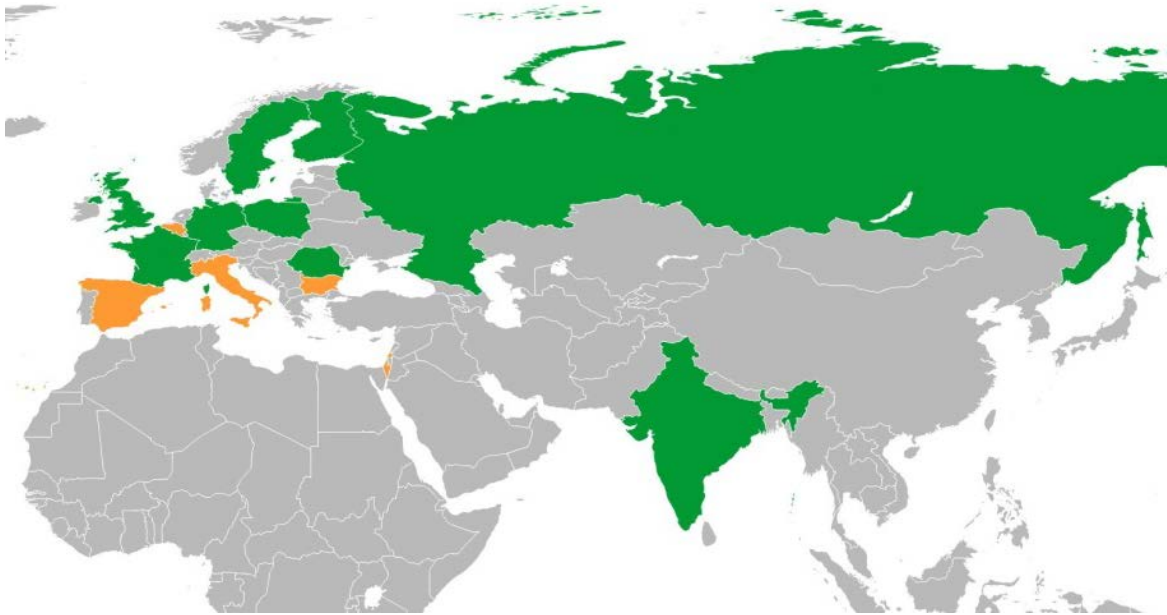
+ energy buncher (as part of accelerator cost-book) **2.4.X**

Overview of construction cost



Category (cost group)	Description	Cost (MEUR 2014)
KG 200	Preparation and development	0.100
KG 300	Edifice (building, incl. pillars)	4.434
KG 400	Edifice (technical infrastructure)	1.921
KG 500	Outdoor facilities (e.g. road work)	0.583
KG 700	Ancillary cost (cost for planning, fees, permits, ...)	1.228
	Total cost estimate	8.266

6.5 MEUR
in 2005 cost

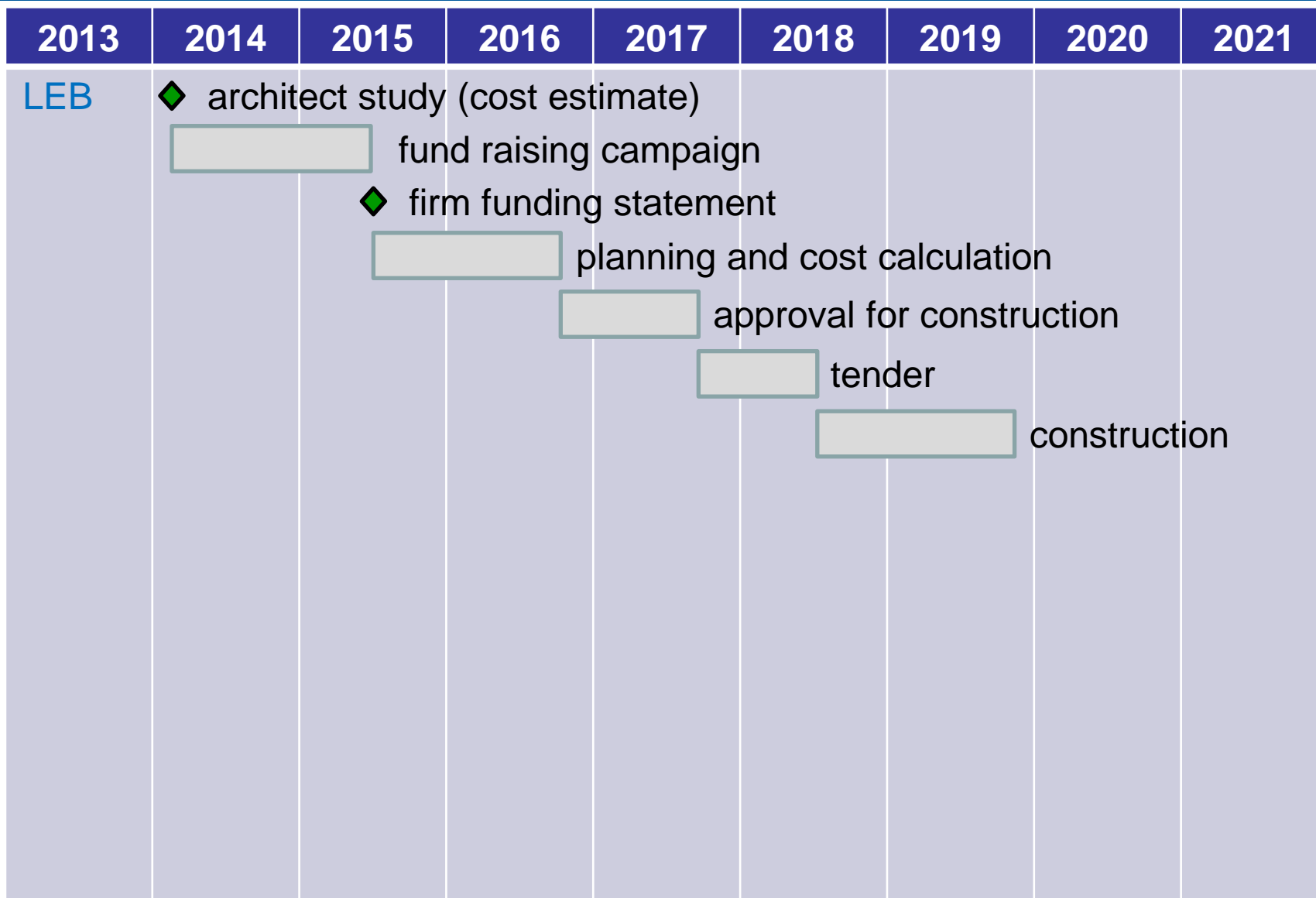


Country	% experiment funding (June 2014)
Belgium	0.8
Bulgaria	1.2
Finland	5.1
France	1.1
Germany	24.9
India	15.4
Israel	0.1
Italy	0.3
Poland	2.6
Romania	9.2
Russia	1.0
Spain	20.3
Sweden	5.2
UK	12.8

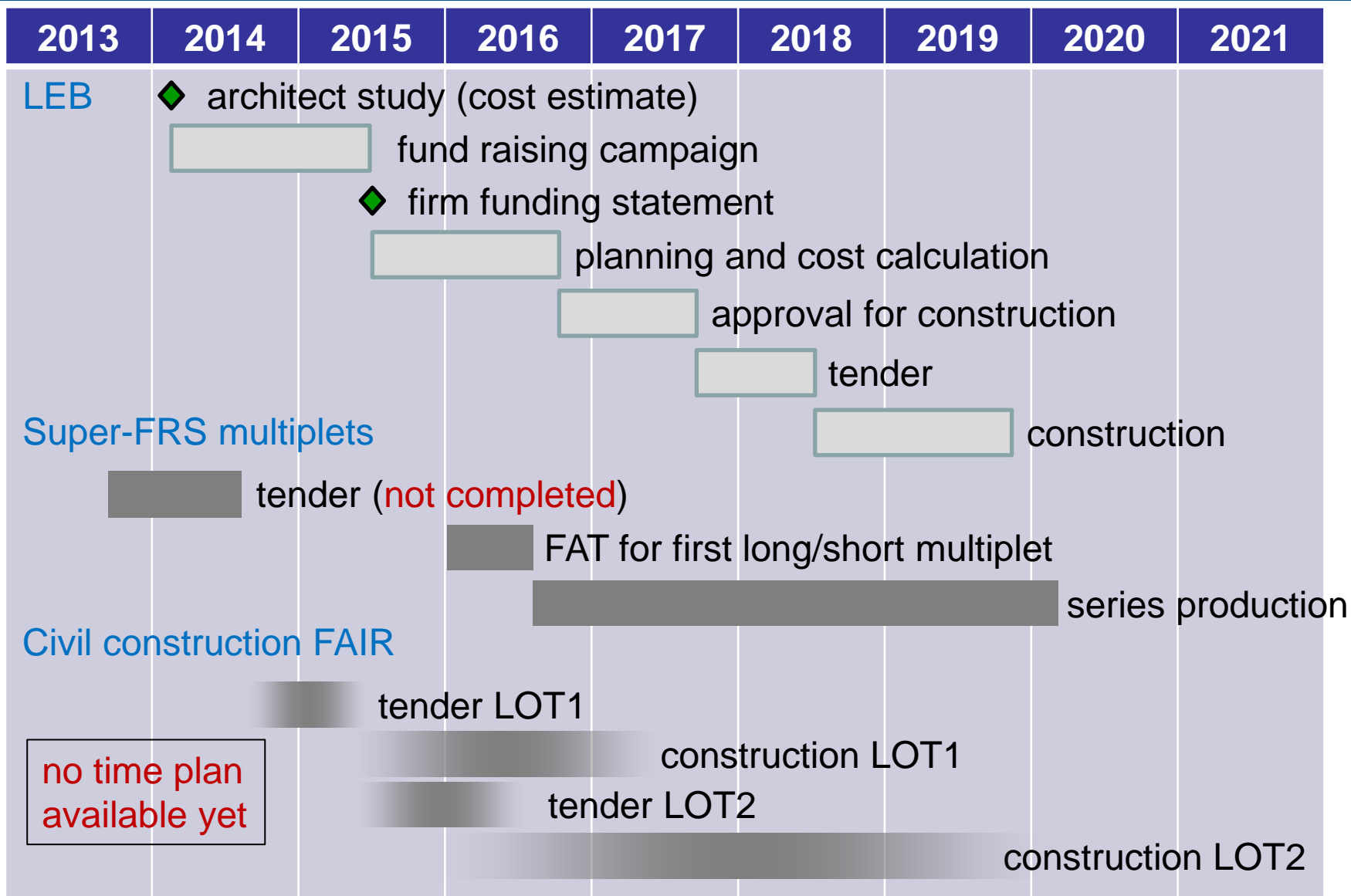
Countries to contact in order to form a consortium:

FAIR partner countries and Spain

Project plan for LEB building (draft)



Relation to other plans (rough estimate)



no time plan available yet