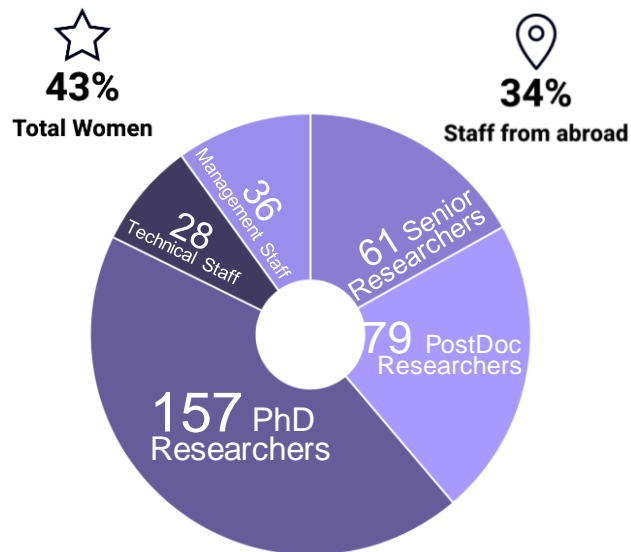


Nuevas tecnologías de baterías

M. Rosa Palacín
(rosa.palacin@icmab.es)





Frontier Research in Materials:
new knowledge, development
and tech know-how

Transfer to society:
mainly to industry of EU
area, human and cultural
progress

**Align with
Catalonia/Spain/EU
strategy:**
S&T development,
economic growth,
employment

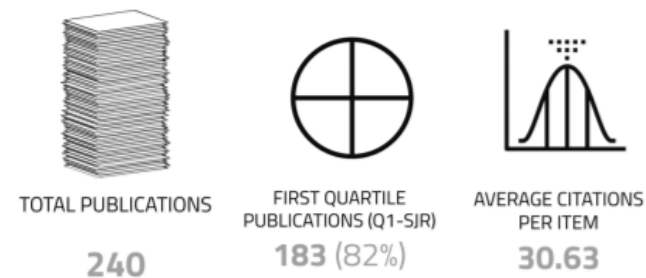
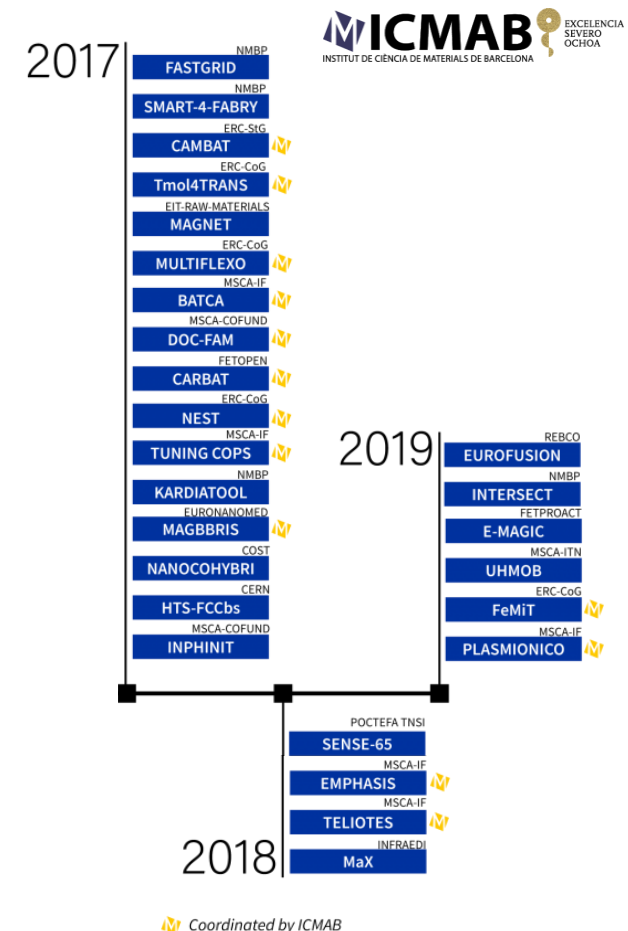
Sustainable Energy Conversion
& Storage Systems

Superconducting Materials
for Emerging Technologies

Oxides for New
Generation Electronics

Tuneable and Low Cost
Molecular Electronics

Bioactive Materials for
Therapy and Diagnosis

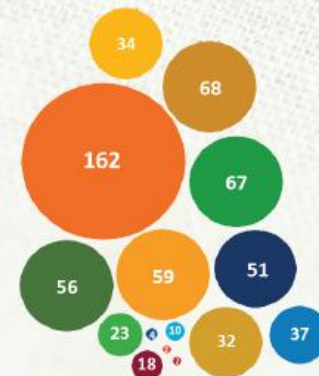


INTERNATIONAL COLLABORATIONS
1,964 in 166 articles (69%)

LA INVESTIGACIÓN EN EL ÁMBITO EUROPEO Y LOS ODS



Pilar 1 Ciencia excelente

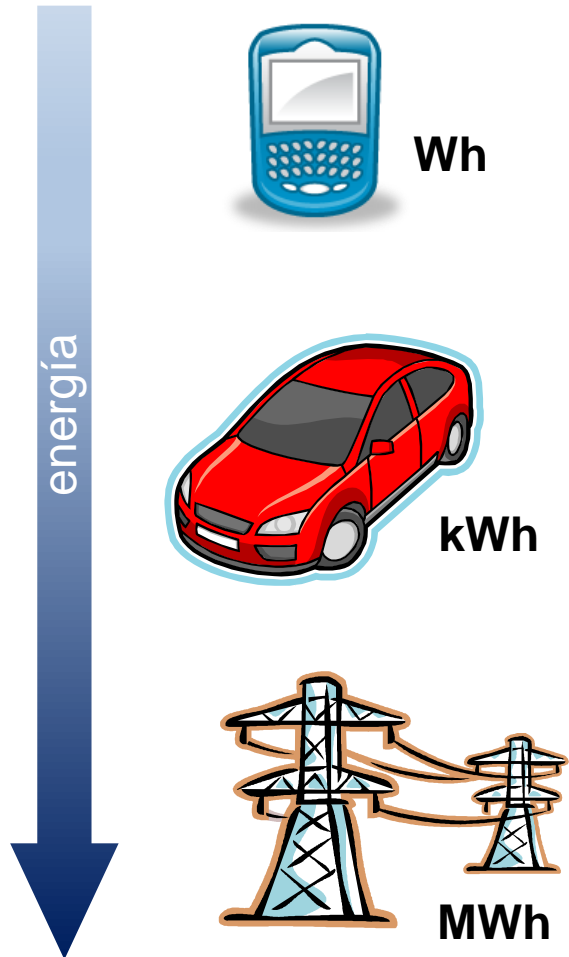


Pilar 2 Liderazgo industrial



Pilar 3 Retos sociales





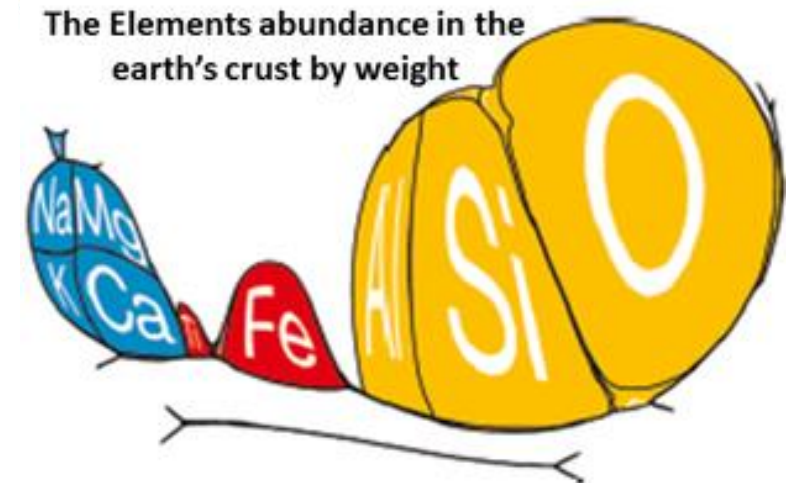
- ↑ prestaciones
- ↑ duración
- ↑ seguridad
- ↓ coste

Sostenibilidad

consumo de agua / energía

reciclaje

materiales críticos



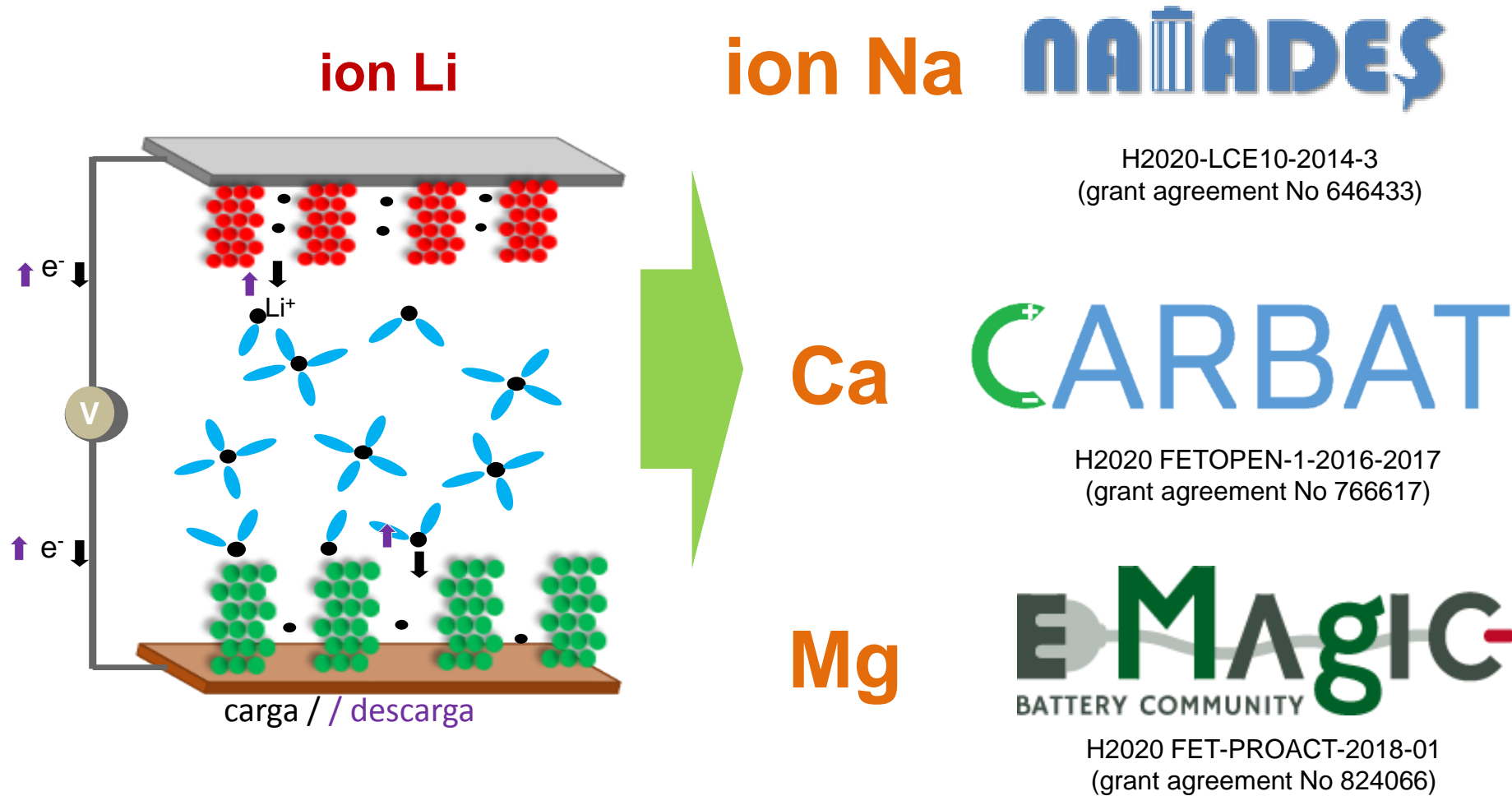
M. J. Winter. *J. Chem. Educ.* 2011, 88, 1507–1510



1. Nanosensors and the Internet of Nanothings – With the Internet of Things expected to comprise 30 billion connected devices by 2020, one of the most exciting areas of focus today is now on nanosensors capable of circulating in the human body or being embedded in construction materials. Once connected, this Internet of Nanothings could have a huge impact on the future of medicine, architecture, agriculture and drug manufacture.

2. Next Generation Batteries – One of the greatest obstacles holding renewable energy back is matching supply with demand, but recent advances in energy storage using sodium, aluminium and zinc based batteries makes mini-grids feasible that can provide clean, reliable, round the clock energy sources to entire villages.





GRACIAS!



ICMAB
INSTITUT DE CIÈNCIA DE MATERIALS DE BARCELONA

EXCELENCIA SEVERO OCHOA
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

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