

Centre for Rapid Online Analysis of Reactions (ROAR): A major Dial-a-Molecule Success Story

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Dial-a-Molecule Grand Challenge Institute: A brief history

Where?

Decision taken by Imperial College in 2014 to move Department of Chemistry from SK→WC: opportunity to co-locate

What?

*Attended NSF workshop, 'Data-rich Chemistry', Washington DC, 2014
Survey conducted 2015: Identify list of equipment and critical skills*

Who?

Stakeholder meeting held 2016: identify stakeholders & their needs

How?

*2017: Secured financial support (EPSRC strategic equipment grant)
2018: Hosted DaM Annual Meeting, moved to White City
2019: Facility officially opened*



From the great...



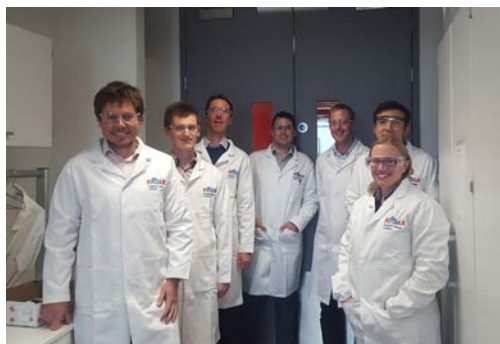
... to the good (outreach)



Collaborations with: Scripps Research Institute (CCHF), University of Pretoria (GCRF), University of Warwick

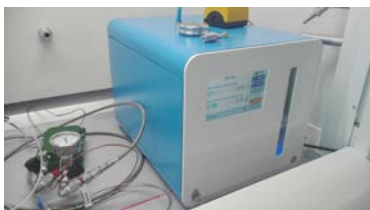


Workshops



(and even) more visitors

Product testing/hosting:



H-Genie

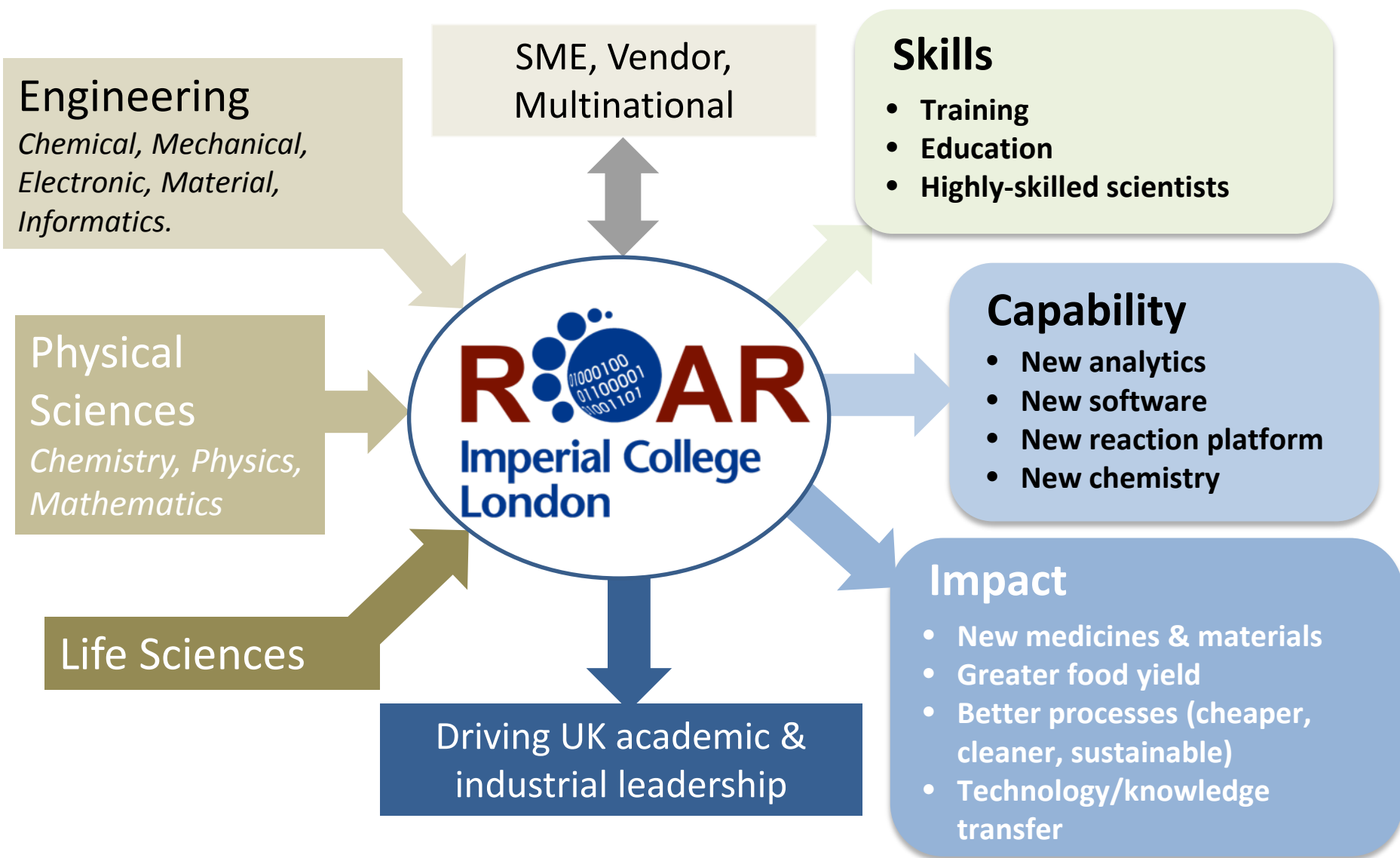
Industrial Projects:



Synple

Welcoming users:





- Mission:
 - **Provide access** to hardware/software on site for users
 - **Support training** courses in key experimental techniques
 - **Engaging** with partners and stakeholders
 - **Bridge gaps:** Development of next generation synthesis and reaction platforms

Rapid analytics (offline, online, inline)



Ben Deadman



Paola Ferrini



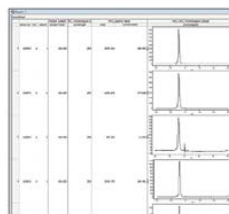
PolyView

Review and report all info
from experimental design,
execution and analytics



Library Studio

Design complex, high-throughput
experiments in an array-based
format



Automation Studio

Execute designed experiments
and integrated analytics



freeslate jr. delivering a plate from shoulder hotel to balance

High-throughput experimentation

Batch & Flow reactors



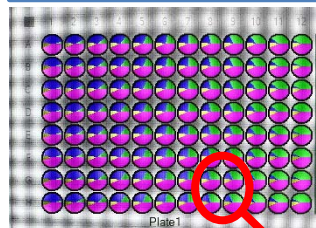
+ much more...

Help name our reactors:
#ROARBOTS

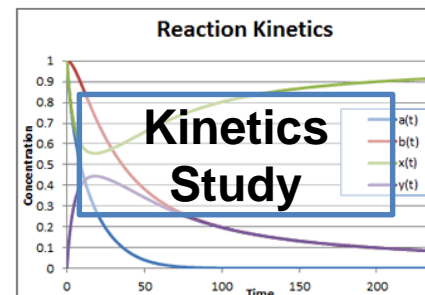
Facilities to support the following:

DoE

Reaction
Screening



HIT!

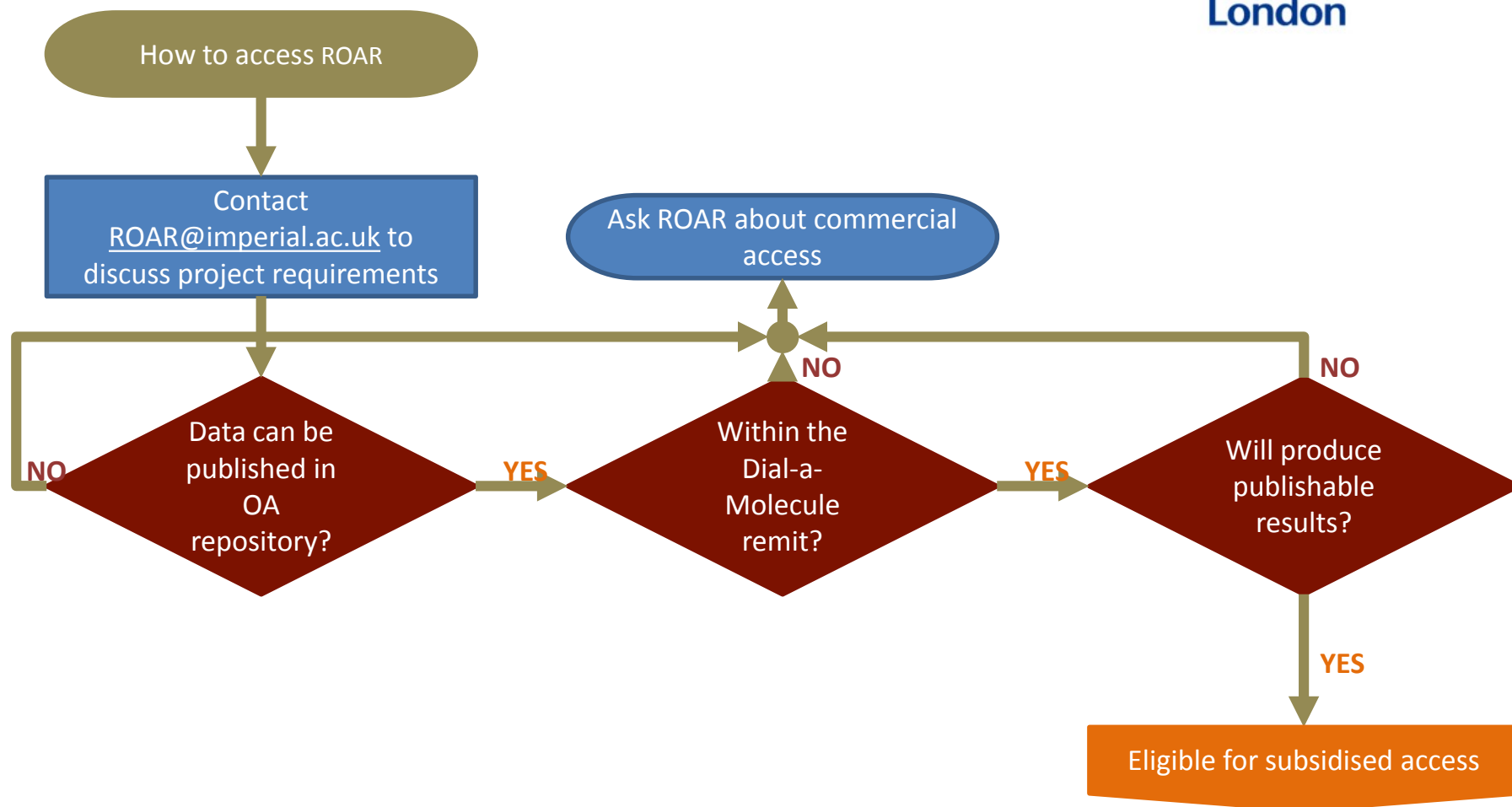


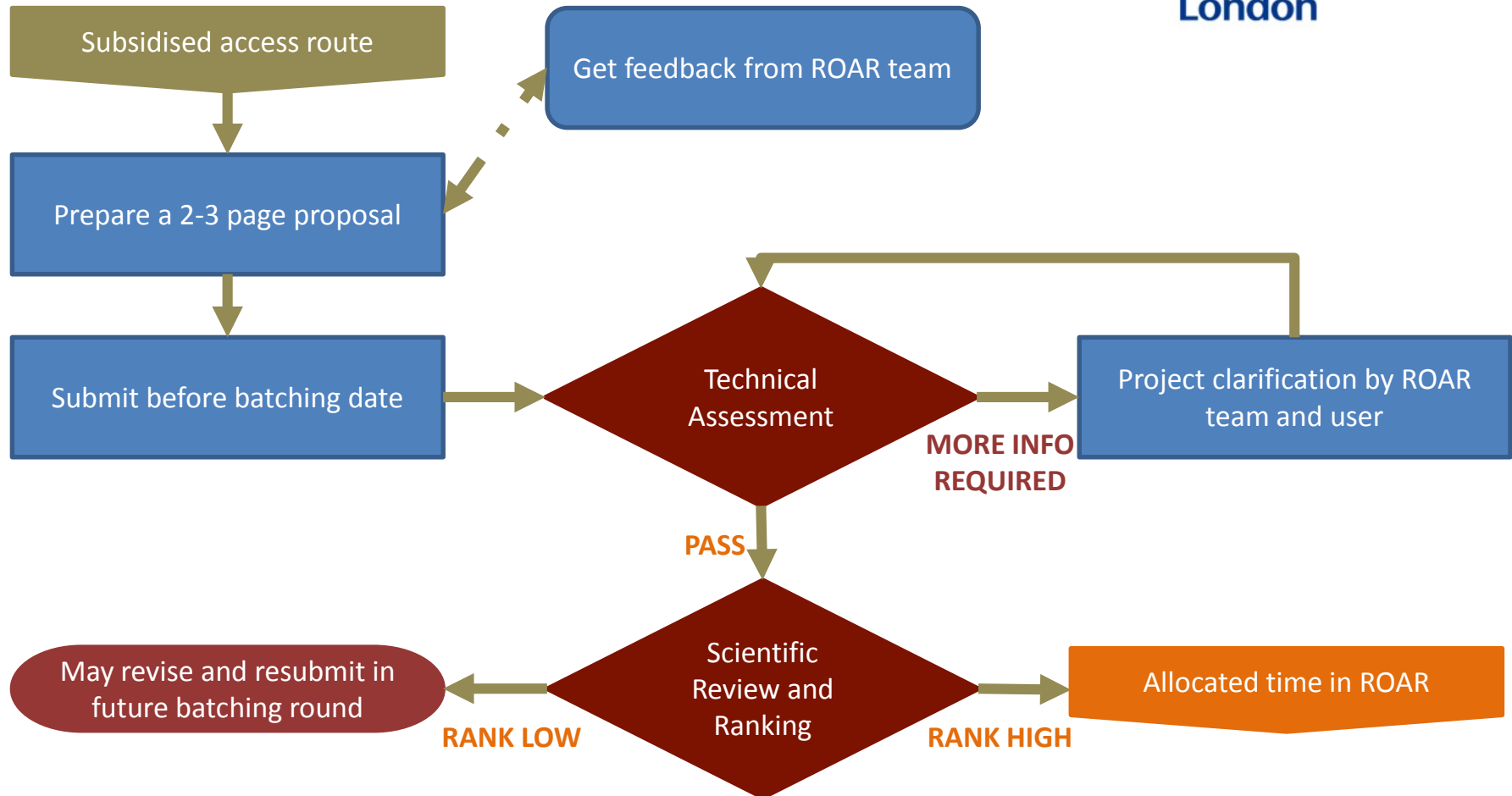
Upscale

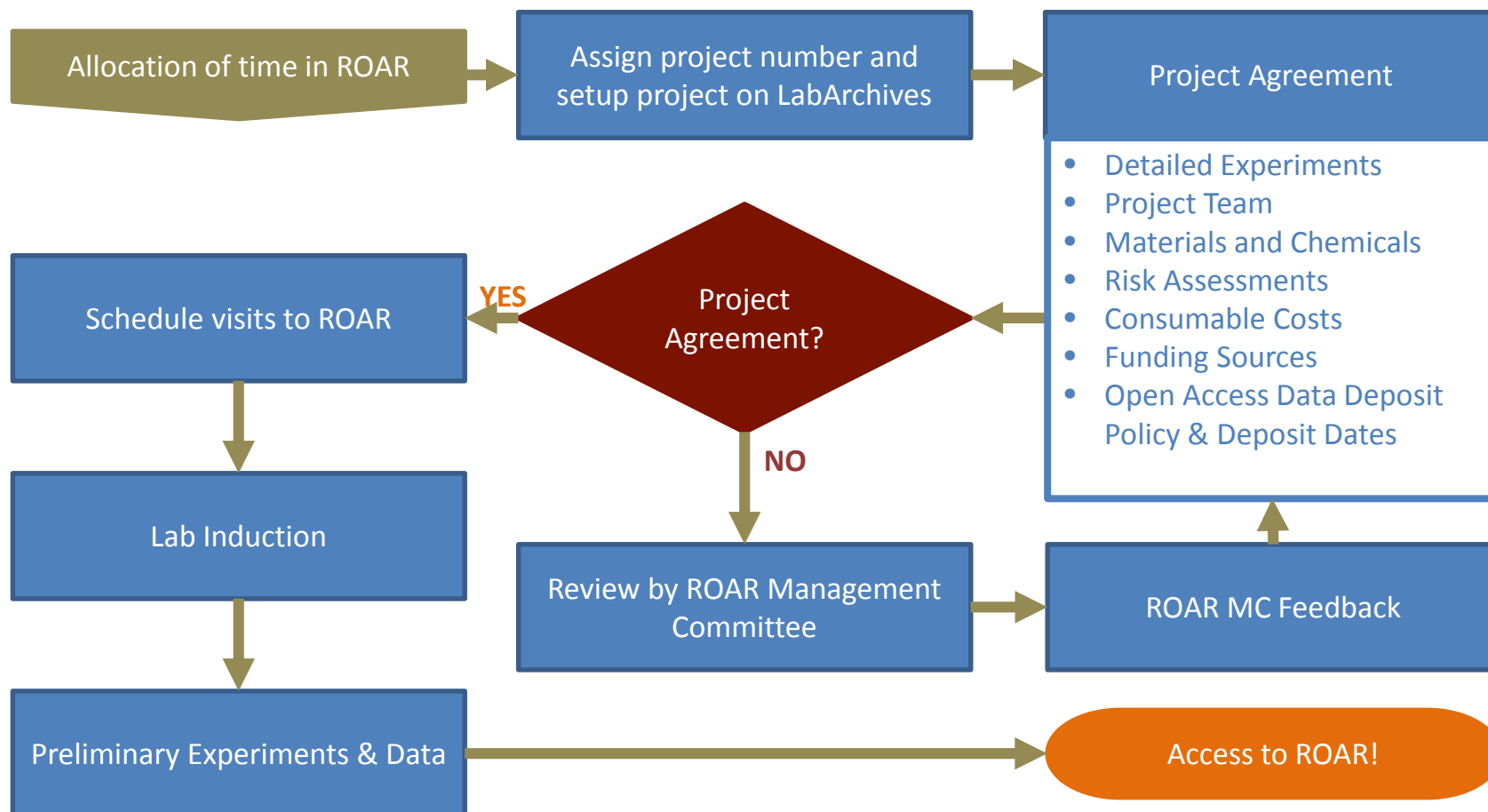


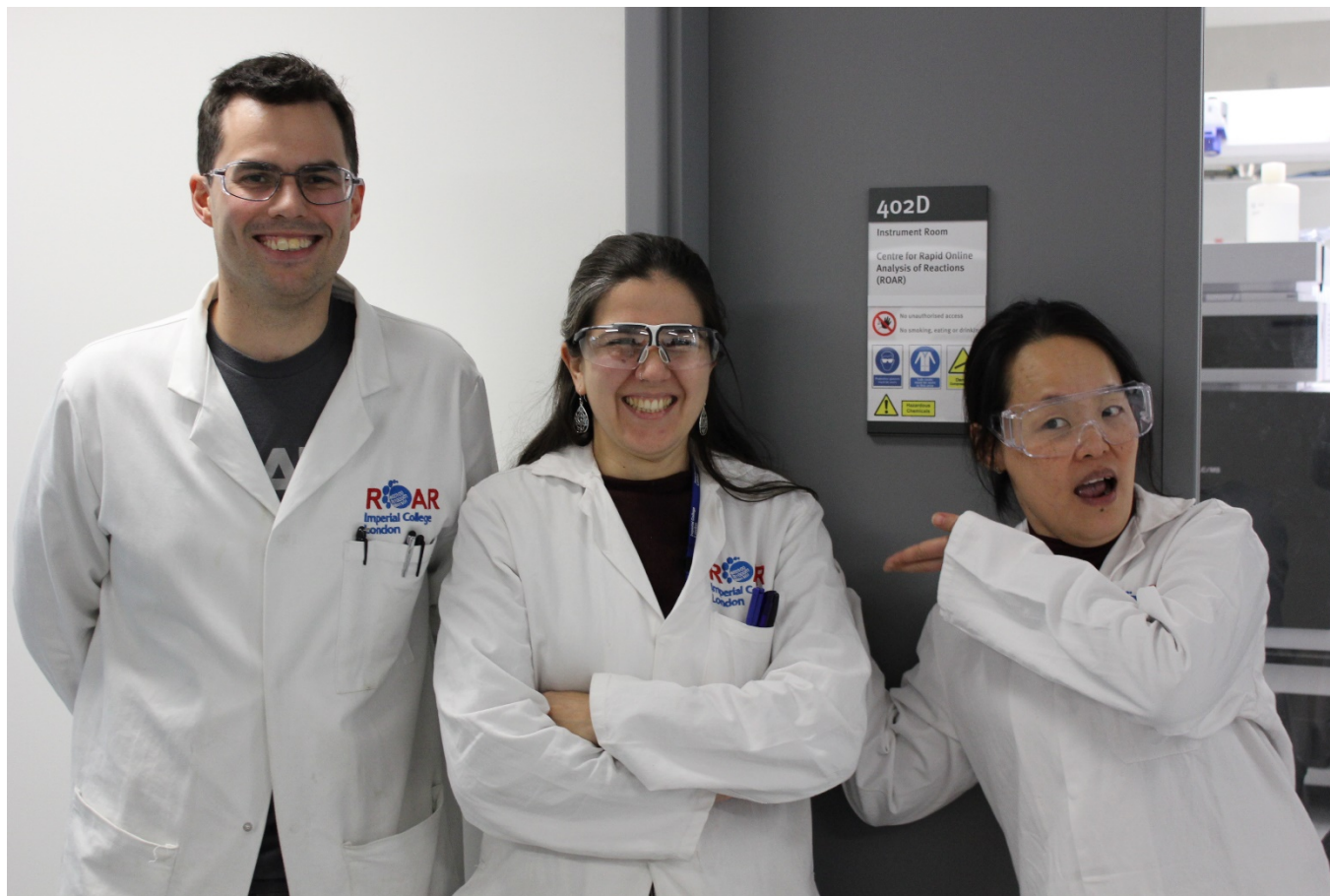
+ New reaction platforms
e.g. flow, electro, photo

- Commissioning period 2018
- Phased opened calls (external users) since January 2019.
- All available from August 2019-December 2020









Have a research problem?
Come talk to us!!