Macro Regional Innovation week

Opening Research infrastructure to industry: Highway to innovation

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- Who we are

- How do we work with industry

- Inspiration for improvement
Partnership between 20 countries

Governance:
- Société Civile – Non-profit Org.
- Intergovernmental Convention

Annual budget: ~100 M€

600 staff, including 60 post-docs and 50 PhD students

40 beamlines, each with their own speciality

Serving 7,000 user visits per year (users own the results)
GIANT (GRENOBLE INNOVATION FOR ADVANCED NEW TECHNOLOGIES)

- 700 brevets/an
- 6 000 publications/an
- 9 000 visiteurs étrangers
- 30 000 femmes et hommes sur le campus
- 40% étudiants
SYNCHROTRON WHAT IT IS?
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270m
SYNCHROTRON WHAT IT IS?

X-rays
X-rays:

- Higher intensity
- Higher and tunable energy
- Coherence
- Time structure
- Polarisation
WHY SYNCHROTRON X-RAYS FOR INDUSTRY?
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Look deeper

Detail

Speed

In real conditions

The European Synchrotron | ESRF
HOW CAN INDUSTRY WORK WITH THE ESRF?

Confidential work
- access with fee
- confidentiality
- priority (access guaranteed and flexibility)
- data analysis service possible
- Target: 2MEuro/year in 2015
- 5%/year increase

Instrumentation & technology IP
- 30 technological licences
- synchrotron instrumentation
- Design consultancy

Peer Review beamtime:
- access free (including transport, catering, accommodation)
- data have to be published
- 2 review panels/year; 30% success rate
- only local contact service

Research contracts and partnership
- Long term Project
- PhD and Post-doc co-funding
- Research contracts
- Horizon 2020
- Ad-hoc scientific collaborations
A TRANSLATIONAL PROBLEM
Our view of the ESRF:
- Unique large-scale instrument
- State-of-the-art
- Fantastic science!

Industrial translation:
- Expensive and difficult to use
- Risky
- Fundamental science
Not for me.

We need to UNLEARN
HOW TO DO BETTER
HOW TO DO BETTER

- Think Longterm -> 5 to 10 years to initiate a change of paradigm

- Fix tangible/measurable objectives -> Turnover? (Impact?)

- Develop innovative business model -> assess the need and address the need

- Develop appropriate partnership -> with multipliers who know the demand

- Develop training schemes -> for students and life-long, both on the industry and on the RI side

- Dedicated staff -> with motivation and specific skills

- Dedicated facilities adapted to industrial needs -> routine/high throughput/statistical experimental setup to increase capacity and turnover

-Promotion activities → needs for communication/awareness building
A PILOT PROJECT

Opening a new market

A pioneering project

Exploiting the ecosystem
HOW TO DO BETTER

- Think Longterm -> 13MEuro over 8 years
- Fix tangible/measurable objectives -> Create a viable service
- Develop innovative business model -> Analysis of demand and collaboration with Business Schools
- Develop appropriate partnership -> Creation of a characterisation platform with CEA-LETI
- Develop training schemes -> dedicated training programme with engineering/business schools
- Dedicated staff -> 3FTE dedicated to the programme
- Dedicated facilities adapted to industrial needs -> 2.5MEuro for dedicated equipment
- Promotion activities → money for dissemination operational costs
https://www.youtube.com/watch?v=BTBB_PMzZfY
Thank you for your attention.

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