the cycle of knowledge

- knowledge/culture production
- knowledge supply and demand
- knowledge transfer
- knowledge valorisation
- research
- research/society
- new policies, technology, ...
- wealth
In 1930 Charlie Chaplin (silent films) and Albert Einstein (theoretical physics) met in Los Angeles.

Einstein said to Chaplin:

"What I most admire about your art, is your universality. You don’t say a word, yet the world understands you!"

Chaplin replied to Einstein:

"True. But your glory is even greater! The whole world admires you, even though they don’t understand a word of what you say."
technology transfer and impact of research in 3 steps at CNR:

1. third mission or mission?

2. complexity

3. strategy
third mission or mission?
third mission or mission?

missions

traditional: first and second

teaching

research

valorisation

tools

autonomy

freedom

goal

responsibility

new: third
scientific research
public
knowledge transfer
new knowledge
models: scientific, cultural, biological, economic...

development
projects
innovations: technological, medical, cultural...

knowledge valorisation
applications
products/services policies
impact & wealth

public/private

private

complexity
humanities

social sciences

natural sciences

technologies

- health, demographic change and wellbeing
- food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy
- secure, clean and efficient energy
- smart, green and integrated transport
- climate action, environment, resource efficiency and raw materials
- Europe in a changing world
- secure societies

complexity
strategy (1)

research & development applications

GAP

private entry

research exit

impact on society & wealth

public

knowledge & education

private

applications
A strategy for research, development, and applications affects knowledge and education, impacting society and wealth. Public and private sectors collaborate in this process.
Stakeholder

Centre for the valorisation and development

Administration

valorisation and development functions:
- legal
- finance
- patent and IP
- communication
- start-up and participations
- industrial relations
- labs management

valorisation and development activities:
- integrated projects
- strategic goals
- experimental and impact view
- proof of principle

Institutes

staff

value

researchers
part time
for projects
Geoffrey C. Nicholson, Geoff, served as Vice President of Corporate Technical Planning and International Technical Operations of 3M Corporation. He served at 3M Corporation from 1963 to 2001. During his career at 3M, he was instrumental in the development of its "Post-it" Notes as well as oversaw 2500 3M employees internationally.

...research is the transformation of money into knowledge and innovation is the transformation of knowledge into money...

Department of Chemistry Centenary Lecture on Innovation, 22 February 2007
Innovation: A Survival Issue
Dr Geoff Nicholson
“...research is the transformation of money into knowledge and innovation is the transformation of knowledge into money...”

1. research produces knowledge and
2. innovation uses knowledge

1. research consumes money and
2. innovations produces money