

**Joint and Open REsearch Programmes:
features and potentialities of the JOREP database**

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Theoretical framework behind the JOREP infrastructure
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RISIS
Research Infrastructure for research and innovation policy studies
SEVENTH FRAMEWORK PROGRAMME

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INSTITUTE OF RESEARCH ON ECONOMIC SUSTAINABLE GROWTH

RESEARCH INFRASTRUCTURE FOR RESEARCH AND INNOVATION POLICY STUDIES

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Background

- ERA concept focuses on integration
 - Transferring competences and budget to the European level
- Instruments toward integration
 - OMC - policy layer
 - NoE - national research policies
 - EUSFRI - research infrastructures
 - Joint programmes - funding layer





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A long path toward integration

- 50's and 60's Critical mass (energy, space)
- 70' Networking and supranational agencies (COST/ESF/Eureka)
- 00's Cooperation in national research funding (ERA-NET/art. 185 EU Treaty/JTI)

- *Member States should better align national research programmes in order to implement commonly agreed strategic research agendas in the context of joint programming. They should also improve interoperability between national programmes in order to facilitate further cross border research cooperation. (ERA Progress Report, 2013)*





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Theoretical approaches

- Schmitter (1996): institutional pluralism in the governance of EU
 - 2 principles of aggregation: territorial and functional
- Euro-polity emerges
 - Channelling the representation of territorial interests through national governments
 - Functional representation through trans-national European-level association
- Four forms of collective actions
 - State/Federation model (common governance structure)
 - Confederatio model (mutual alignment of policies without losing national competencies –and power)
 - Condominio model (decentralization of integration by ad hoc and one-off collaboration)
 - Consortio model (contiguous spatial bloc within a common hierarchy of authority, pooling capacities in order to act autonomously in domains that single countries cannot control)





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Theoretical approaches

- Kuhlmann (2001) co-evolution of “political systems” and “innovation systems” in Europe - three scenarios
 - increasingly centralised and dominating European innovation policy arena (*probably fails*)
 - progressive decentralisation and open competition between partly strengthened, partly weakened national or regional innovation systems (*more probable*)
 - centrally “mediated” mixture of competition and co-operation between diverse regional innovation cultures and a related governance structure (*some degree of probability*)
- Multi-actors multi-layered nature of the European governance (Edler and Kuhlmann, 2011)





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Theoretical approaches

- Coordination modes in public project funding: national agents moving within specific interaction spaces of the national research systems: project-based, mixed, and vertically integrated modes (Lepori, 2011)
- European dynamics are shaped by the interaction between research spaces and disciplinary spaces: “global research field” and “localized research spaces” (Nedeva, 2012)
- Countries differ as to the way in which the functions of orientation, programming and research are distributed among national actors (one organization in charge of different functions or delegating functions from one organization to another, Barré et al., 2012)



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ERA and the goal of integration

- Transnational research activities are still underdeveloped, and many barriers can be detected linked to legal/organizational factors and to research capacity (Optimat, 2005)
- Little evidences of policy convergence emerged, as tendency of different countries to grow more alike by developing integrated policy instruments for trans-national research (Knill, 2005).
- Different strategies toward policy coordination based on the level of shift of competences and autonomy from one policy level to another one (ministry or agency, Edler 2010)
 - integration - complete shift, new policy entity
 - coordination – “the various elements are still autonomous, they do not strive to be merged into one new entity, and they still engage in their individual activities”
 - collaboration – no shift



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Joint programming

- ERA countries are free
 - To initiate Joint programmes with other countries
 - To decide whether to participate in existing joint programmes
 - How much budget to allocate to them
- Different patterns of transnational research according to:
 - The size (large countries vs small countries based on the population, the intensity of the GDP per capita and the R&D investment)
 - The presence of specialized actors for certain type of program funding (e.g. research councils or innovation agencies)
 - A national specialization in given research fields/themes
 - Symbolic, signaling motivations



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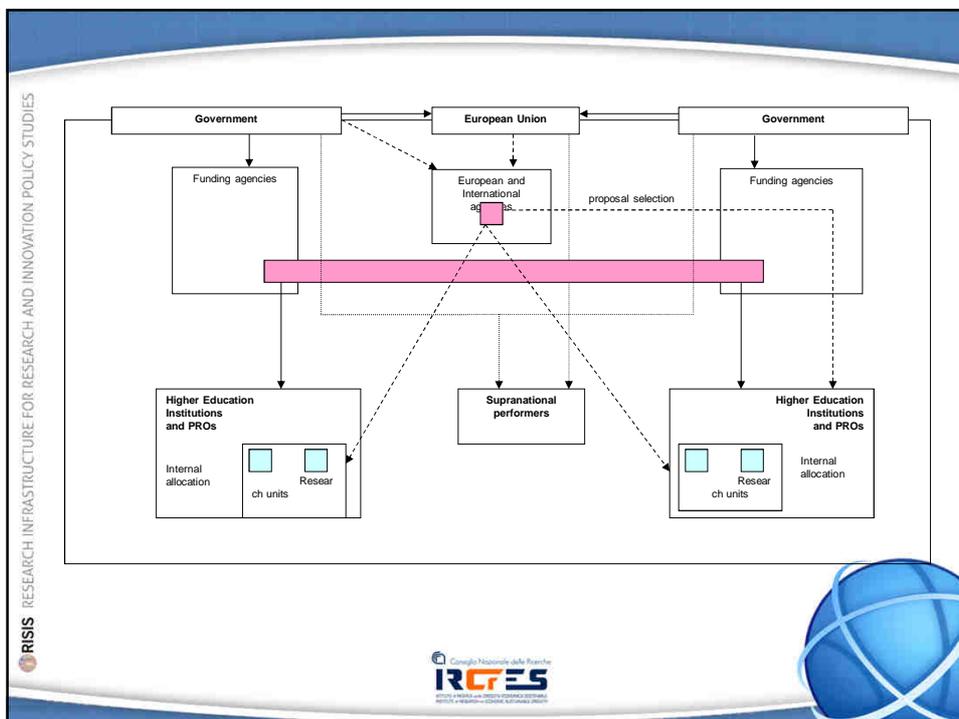
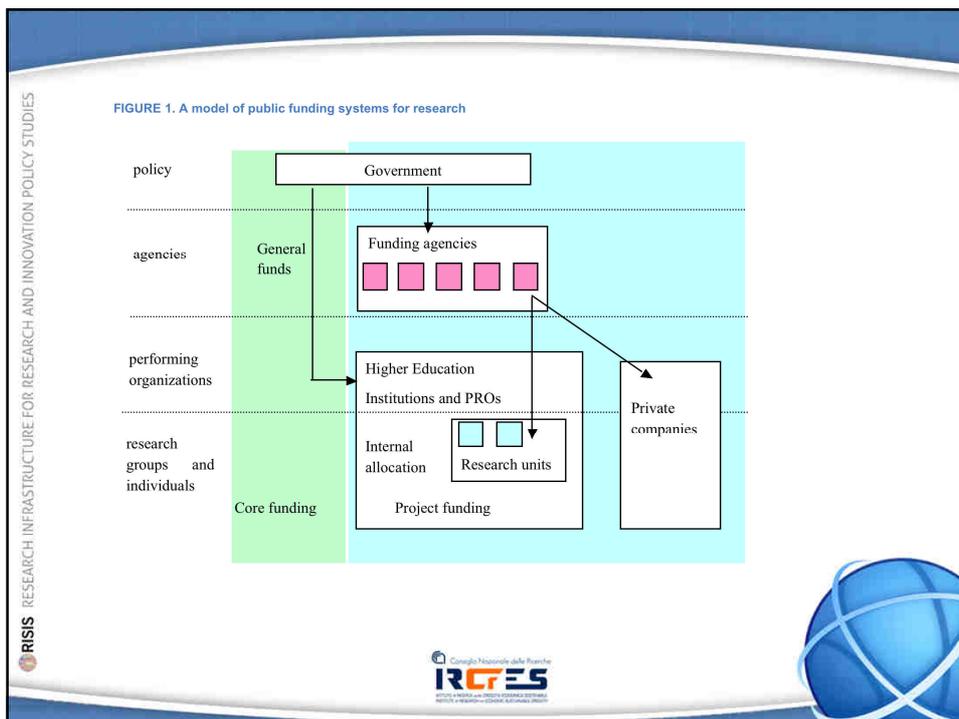
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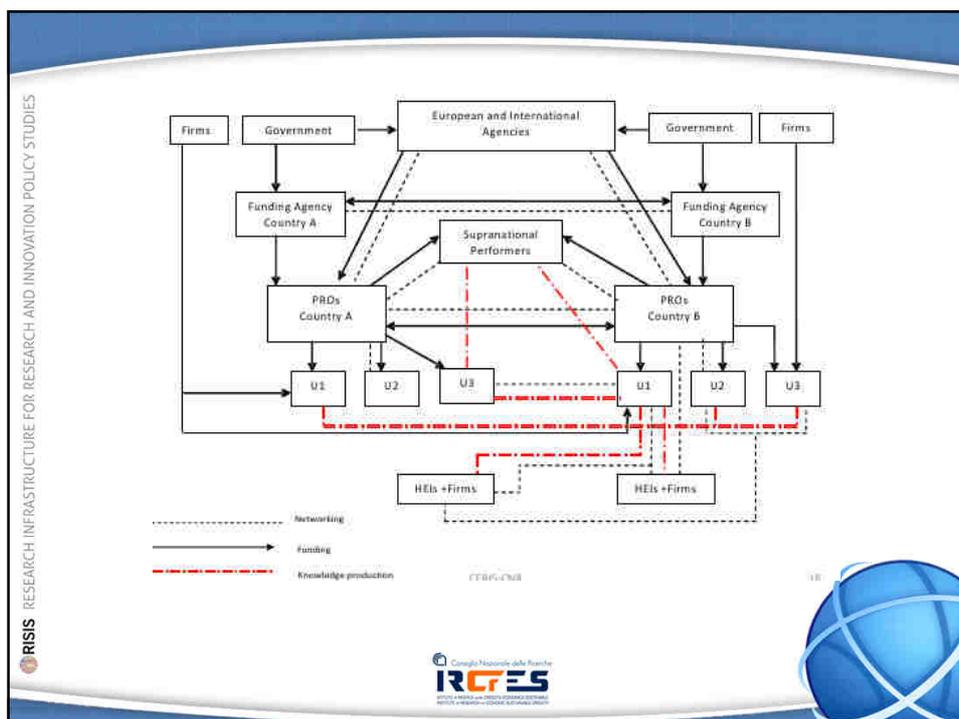
Building a conceptual framework

- Research funding systems are based on
 - four layers representing functions in research funding - policy, funding agencies, performing organizations and research groups
 - two main allocation modes, institutional and project funding
- Project funding is characterized by:
 - the organizational separation between funding agency and beneficiary
 - funding is limited in time
 - resources are allocated directly to research groups instead of whole universities or research organizations.
- The main distinctive criterion is not whether the process of allocation is competitive or not
- Vertically integrated organizations acting as research performers and funding agencies at the same time (Academies of Sciences or CNRS)



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Research funding programme

- Organizational setting able to distribute project funding to research groups involving the following *functions*:
 - An explicit goal and mission statement, including the objectives to be reached.
 - A statement of scientific priorities or perimeter concerned and an expression of the type and mode of research expected, expressed in the call for proposal.
 - A procedure and set of rules for submitting proposals, as well as for their evaluation and selection.
 - A dedicated budget related to the program.
 - The procedures for contract establishment and management, including follow-up and reporting.

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Programme not project

- Strategic intent (outward focus)
- Focus on politics, organizations and negotiations
- Broad scope
- Success criteria and long term impact
- Governance
- Monitoring environmental change as well as change in program
- Long in duration in time
- Benefits are achieved throughout duration of program





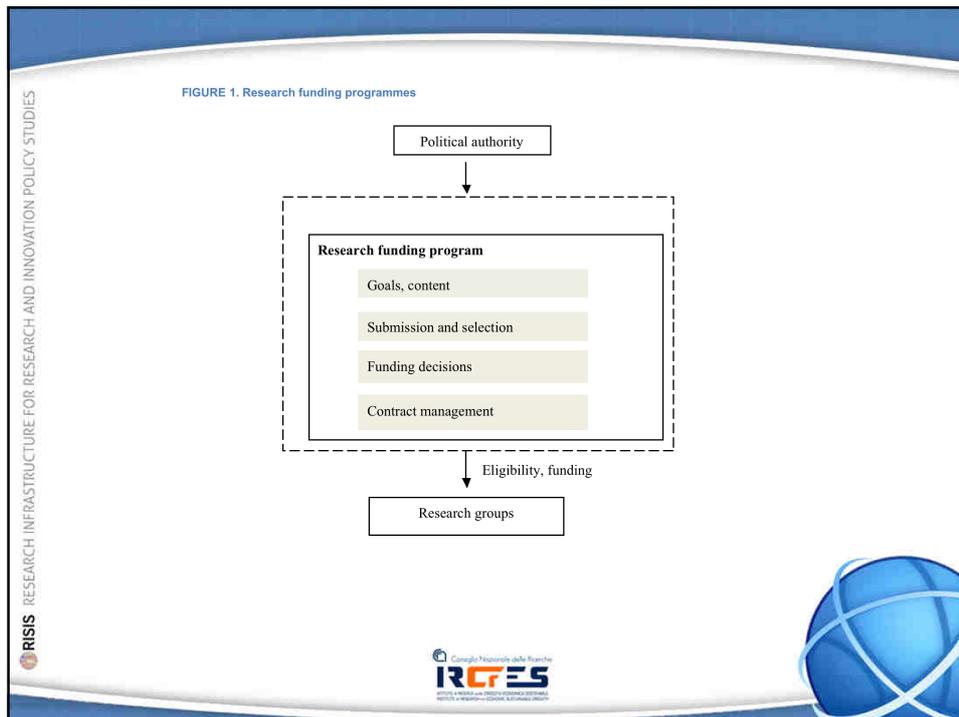
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What is *not* a research funding programme

- Spot research contracts attributed for specific purposes and without a well-defined framework
- Grants or contracts attributed without an open call for proposal (call internal to one university or research organization is not open)
- Programmes without relationships with the policy layer –the political authority establishing their mission and providing the resources
- Programmes without relationships with the organizational layer, which are eligible for receiving funding







Definitions

- **Publicly funded research programmes** are by definition those programmes included in the perimeter of the GBAORD
- **Funding agency** is a formal organization which executes at least one the programme functions. A funding agency does not necessarily have its own budget for funding research, even if it assumes functions in programme funding
- Coordinated planning of research infrastructures between European countries is not included in JOREP (CERN, ESFRI)

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Definitions

- **National programs** are those for which all program functions are operated by one or more agencies located in the same country and which are related to the national policy strategy (e.g. programs operated by national research councils)
- **European Union programs** are those for which all functions are operated by a European-level funding agency and for which mission and resources are provided solely by the European Union; functionally, they display the same organization as national programs, although covering the whole ERA.





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Definitions

- **Joint programmes** are publicly funded research programmes for which at least one of the programme functions is shared between more than a single country (or by regions belonging to more than one country)
- Programmes funded by the non-profit sector (e.g. charities) are excluded
- Programmes funding innovation are excluded Checking is related to goals and mission and not to the activities performed





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Perimeter

- JOREP perimeter includes programmes which fund research activities and not only travel and coordination costs
- The *possibility* to use programme funding to hire/remunerate researchers (including PhD students) is the main criterion for identifying these programmes
- Programmes directly managed by the European Union and funded only from the European budget are not considered as joint programmes
 - EUFPs and structural funds not included
- National research organizations (Academy of Sciences or CNRS) will be included in JOREP as far as they act as funding agencies for the laboratories





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Perimeter Joint Programmes

- All joint programmes where at least one participating country is situated in the ERA
- Only programmes which had calls in 2008 or 2009 included, back to 2000
- A **restricted perimeter** for data, including all programmes which are considered significant in respect to the national and European research policy and/or for the performing organizations
 - Political visibility limited.
 - Level of funding is low (as related to national project funding).
 - Short-term initiative (e.g. only one call)
- Joint programmes managed by regions are included (very significant cases)
- Programmes should be considered separated and disaggregated at the level of the individual initiatives, if, at the programme level, they have a separated budget with dedicated calls
 - (ERA-NET, ERA-NET+ and art. 185 initiatives disaggregated; EUREKA and COST not disaggregated)





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Cases of exclusion

- INTERREG
- Art.185- Joint Baltic sea research programme (BONUS)
- JTI- Innovative Medicines Initiative (IMI)
- JTI- Aeronautics and Air Transport (Clean Sky)
- JTI- Hydrogen and Fuel Cells Initiative (FCH)
- All Joint Programming Initiatives under the "EU copyright" :
 - *Citi'EU*
 - *URBAN EUROPE*
 - *Neurodegenerative Diseases/Alzheimer's*
 - *Agriculture, Food Security & Climate Change*
 - *Cultural Heritage & Global Change*
 - *A Healthy Diet for a Healthy Life*
 - *More Years, Better Lives*
 - *Antimicrobial Resistance*
 - *Water Challenges*
 - *Health & Productive Seas and Oceans*
- EUROCONTROL
- All programmes funding research infrastructures

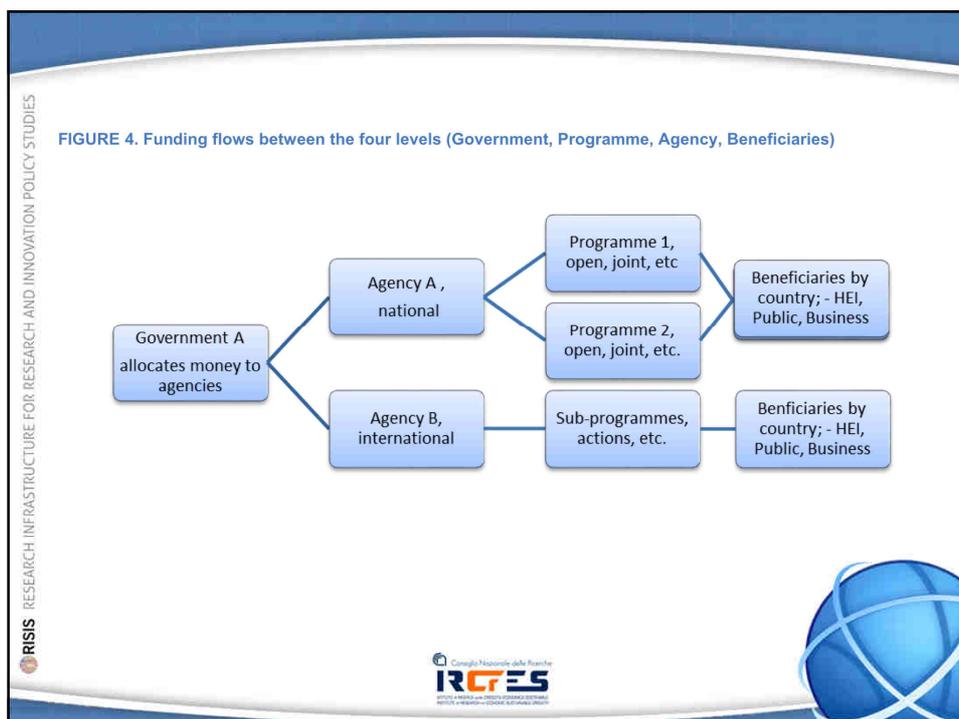



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Cases of exclusion in JOREP

- **INTERREG** is directly managed by the European Union and funded only from the European budget are not considered as joint programmes. This would be an argument for leaving it out from the data collection
- **The programme Art. 185 BONUS** is excluded as it has not launched any calls yet or in the reference period 2008-2009. BONUS 185 will enter an implementation phase only in 2012
- **EUROCONTROL** was excluded in the full data collection after a check of the activities funded. It mainly funds cooperation activities and there is no direct contribution from national states
- **JTIs** in the list were excluded as there is no Member State funding available for the programme activities
- All **Joint Programme Initiatives (JPI)**, recently launched under the auspices of the European Commission (calls where only launched late 2010)



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Organizational characteristics of joint programmes

- Functions that might be shared at the supranational level
 - Call
 - Submission
 - Evaluation and selection
 - Funding decision
 - Contract management.
- Modes of managing the functions
 - Creation of a supranational agency
 - Coordination through committees
 - Parallel processes
 - Delegation
- Options for funding management
 - Common pot
 - National pot (possibly with EU top-up funding)




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Building a typology

- Problem of typifying a complex and variable set of programmes
 - Selecting attributes that conceptualize the main characteristics of the programmes
- A typology was built based on
 - the integration of programmes' functions (mode of integration and submission procedures)
 - The integration of financial resources
- It allows to distinguish between
 - Integrate programs
 - Coordinate programs
 - Collaborative programs





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Integration of programme functions

- Mode of integration
 - *Agency*= joint activities are managed by a supranational agency
 - *Coordination*= Joint activities are managed through non-permanent structures like joint committees, specifically created for the programme
 - *Delegation*= joint activities are delegated to a national agency of one of the participating country
 - *Independent selection*= joint activities are developed independently and the project is approved only if all the parties decide independently to fund it
- Submission procedure
 - *Single entry point*: submission to a single agency
 - *Parallel submission*: proposal have to be submitted at the same time to two or more agencies





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Funding integration

- *Real common pot*
 - all financial resources from participating countries are put in a single pot and used for financing the selected projects, independently of the country
- *Real common pot with return rules,*
 - on the whole of the program some relationship is formally requested between national contributions and funding to national performers.
- *National pot*
 - financial resources for participating countries are managed separately and devoted to national performers
- *Mixed-mode*
 - i.e. virtual common pot plus top-up contribution to support best ranked projects.
- *National pot with additional EU contribution to the whole program.*




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Typology of Joint programmes

Integration of the program functions		Integration of the funding resources	Type of program
Integration	Submission	Funding	
Agency	Single-entry point	Real common pot	➤ Integrated program with integration of funding
Agency	Single-entry point	National pot	➤ Integrated program without integration of funding
Coordination	Single-entry point	Real common pot	➤ Coordinated program with integration of funding
Coordination	Single-entry point	National pot	➤ Coordinated program without integration of funding
Delegation	Single-entry point	National pot	➤ Collaborative program with delegation
Coordination	Parallel	National pot	➤ Collaborative program – parallel program
Independent	Parallel	National pot	➤ Collaborative program – independent program




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Institutional logics

- The organizational characteristics of joint programmes combine in different ways
 - They allow to depict small groups of programmes with similar characteristics
- Using the notion of «Institutional logics» we can look at actors' strategies as blueprints for establishing joint programs
 - Taking into account their interests and goals
 - Taking into account mixing of logics that can occur
- Three ideal types of logics related to underlying models of European integration
 - These build the basis for analysing and categorization of joint programs





	Integration logic	Coordination logic	Collaboration logic
European integration conception (Schmitter)	Supranational state (stato/federation model)	Confoederatio model	Condominio model
Research policy scenario (Kuhlmann)	Concentration and integration in transnational arenas	Cooperation and competition in multilevel-policy arenas	Decentralization scenario, where national state are the dominant actors
Underlying rationale and legitimacy	Achieving critical mass Fostering competition Promoting international collaboration	Subsidiarity: promoting coordination and competition while building on national and regional cultures and strengths	Promoting research collaboration to strengthen the national research basis
Organizational model	Joint programs managed by a supranational agency who is fully in charge of all program functions.	Joint programming initiatives with variable geometry and levels of commitment	Ad hoc agreements between national funding agencies; light and transient structure for joint decision-making.
Funding model	Common pot (no national return rules)	National-pot or national pot with EU top-up funding	National pot
Funding source	National budget based on fixed contribution or European budget	National budget, possibly with additional EU contribution	National budgets
Ancestor	European Space Agency (1975)	ERA-CHEMISTRY (2004), MATERA (2005)	DEUFRACO (1978)

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Summing up

- Variable geometry of joint programmes
- Rapid evolution of the landscape
 - Changing of the characteristics of the programmes (hybrid logics of coordination-bridging the gap between integration and collaboration)
 - Changing role of the actors (Funding Agencies and government delegation, national trust favouring integration, national champions, etc.)
 - Competition and the concentration of the budget in few programmes





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Summing up

- A dataset built on theoretical assumptions and conceptual framework
- Eurostat data collection on joint programmes
 - Cases of exclusion are now included
 - JPIs and Horizon 2020 joint initiatives
 - From 97 to 133 programmes in 4 years (ESA included)
 - Very different participation between Western and Eastern European countries
- Maintaining descriptors is crucial for policy analysis
- Integrating data on national project funding



