

Financial Communication in the Life Sciences: Focus on Intellectual Capital Reporting

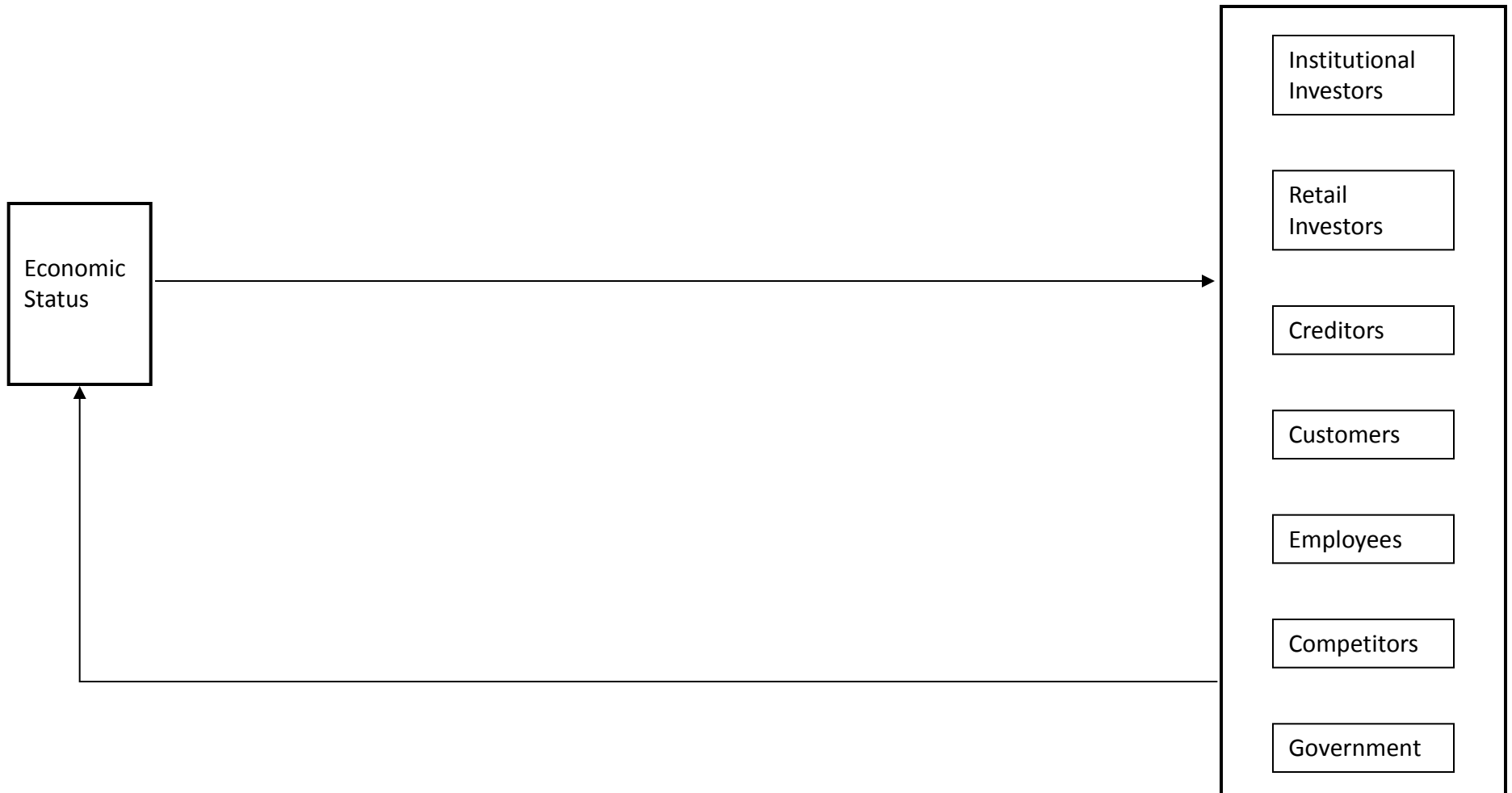
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Accounting and Financial Communication: Course Schematic

Stakeholders

Make decisions and take actions based on information



Information Package

Information Intermediaries

Stakeholders

Information Content:

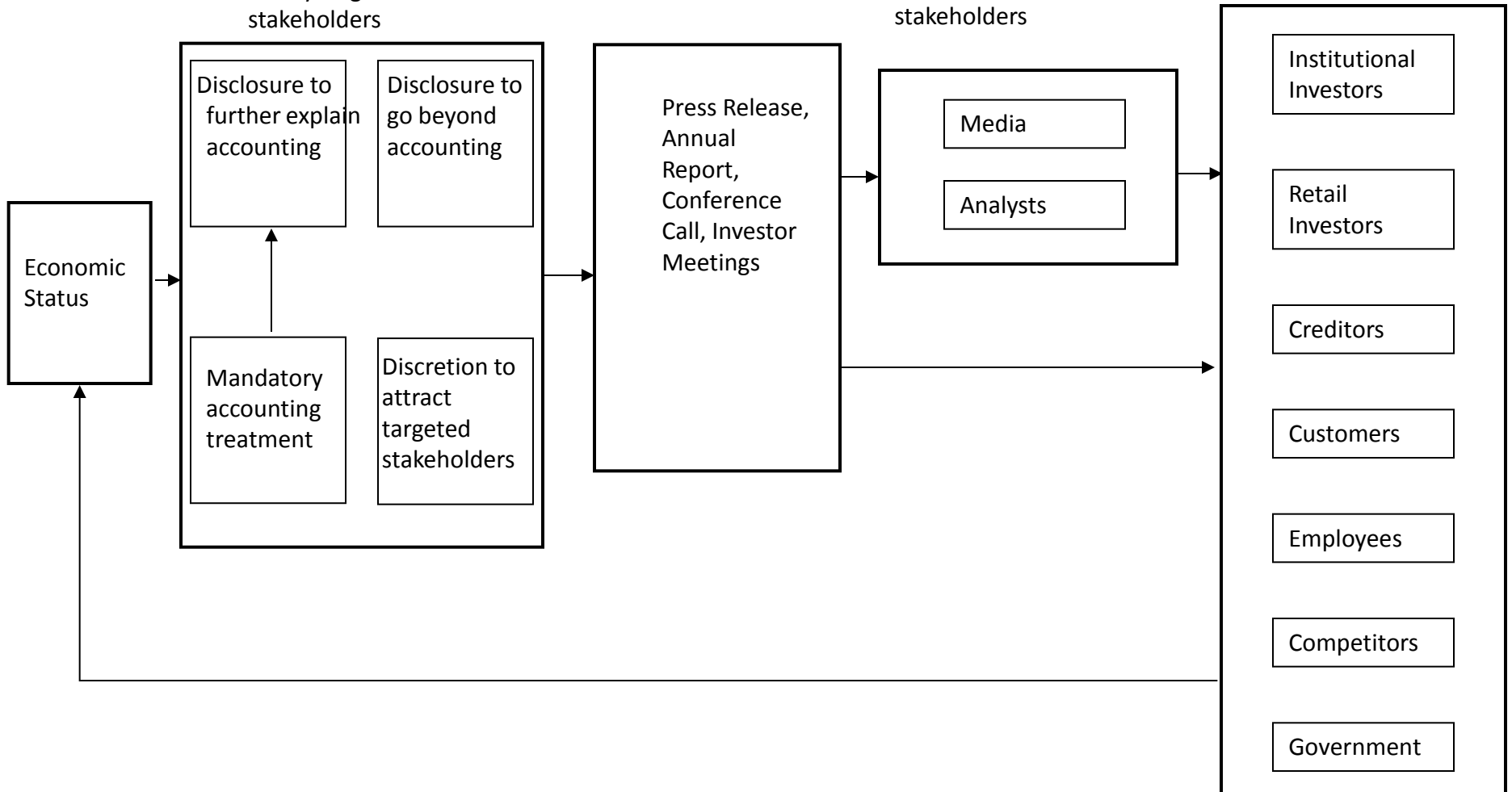
Designed to communicate economic events and satisfy targeted stakeholders

Information Channel/Form:

Designed to attract attention of targeted stakeholders and intermediaries

Combine information package with other information and analyze, then report to stakeholders

Make decisions and take actions based on information



Financial Communication is Crucial in the Life Sciences Industry, Where:

- Access to capital is critical for success.
- Drug development costs are high.
- Hospital equipment is costly to acquire and maintain.

The Life Sciences Industry Faces Unique Challenges Because:

- Scientific inquiry can have uncertain outcomes.
- Future returns to viable innovations are unclear.
- Investor time horizon is limited.
- Venture capitalists adopt a portfolio approach to investing, spreading risk exposure thinly.
- Public equity markets respond poorly where there is no clear, standardized means of evaluating R&D.
- Investment returns do not sufficiently compensate for added risk.

How Well is Capital Typically Allocated?

- Most biotech firms are short-lived and unprofitable--Companies like Genentec and AmGen are exceptional.
- Most hospitals are ailing financially.
- There are wide differences in costs and quality between providers across geographical areas.
- Many medical procedures are not appropriate to the diagnosis.
- Medical services are restricted and rationed.

Reasons for Sub-Optimal Performance of Biotech Firms:

- Drug development is siloed; needs to be more interdisciplinary.
- Emphasis on start-ups and short-term monetary alliances does not foster knowledge accumulation.

Key Success Factors:

- Fewer, closer, longer-term collaborations.
- More cross-disciplinary research.
- More “translational” research.

Reasons for Sub-Optimal Performance in Healthcare Delivery:

- Hospitals depend on large infrastructures with many fixed costs.
 - Adoption of low-cost (“disruptive”) innovations is difficult.
- Emphasis on complex conditions creates large, expensive bureaucracies.
- Because it is difficult to innovate themselves, healthcare institutions are vulnerable to external competition from “disruptive” technologies.
 - Maintaining the status quo may result in more costly, less efficient treatments reaching fewer patients.
- Inflexibility leads to increased competition for high-cost services.
- Zero-sum competition is focused on shifting costs via bargaining, rather than reducing them through innovation.

Key Success Factors:

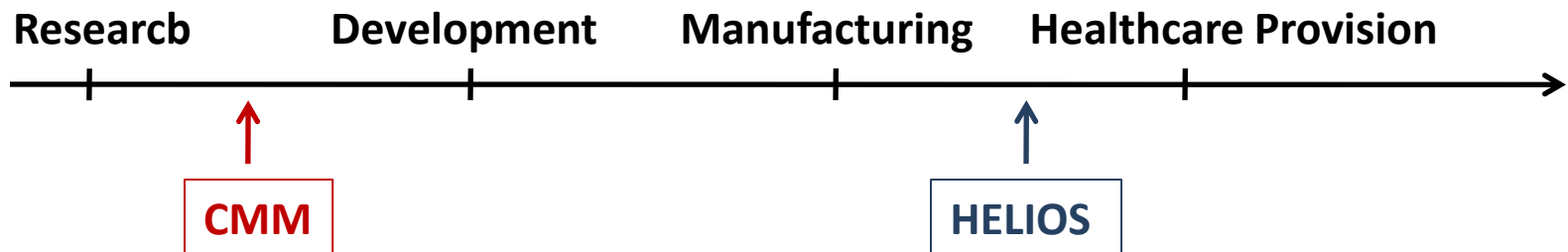
- Mitigate risk associated with disruptive innovation; seize opportunities introduced by low-cost alternatives.
- Develop critical workflow that identifies when, where, and in what sequence care should be delivered.
- Develop an effective learning environment. Success may depend more on team dynamics than the experience levels of members.
- Invest in infrastructure and technology that can reduce redundancy and medical errors.

How Can Enterprises in the Life Sciences Sector Credibly Communicate Their Value in Order Access Capital?

- Accounting: Drawback is that traditional financial reporting does not recognize value creation over long development cycles.
- Disclosure of R&D Efforts: Evidence suggests this can reduce investor perceptions of risk.
- Supplemental Disclosures, such as:
 - Conference call transcripts.
 - R&D Open Houses.
 - Intellectual capital reports designed to lengthen the investor's horizon beyond 2-3 years.

Evidence on Two Enterprises: Works in Progress

	Center for Molecular Medicine	HELIOS Kliniken GmbH
Business Focus	Diagnostic and therapeutic processes, drug and medical device development, scientific discovery	Medical treatment, end-service provision
Main Source of Funding	Public, donor grants	Private
Location	Stockholm, Sweden	Hospitals and clinics dispersed throughout Germany



Center for Molecular Medicine (CMM)

Stockholm, Sweden

Enterprise Overview:

- Established in 1997 with funding from private donors.
- Public support constitutes 10-15% of resource base.
- “Swedish Exception” – Law confers ownership of all patented results to researchers.
- Employs 400 researchers, including scientists from nearby Karolinska Institute and Karolinska University Hospital.
- Tax-exempt, non-profit.

Key Objectives:

- Research the molecular genetic basis of common, chronic conditions.
- Develop treatments and diagnostic methods with clinical relevance.
- Transfer knowledge to wider society.
- Attract cutting-edge researchers and cultivate young talent.
- Generate competitive spin-off companies and patents.

Center for Molecular Medicine (CMM): Genesis of Intellectual Capital Reporting in 2003

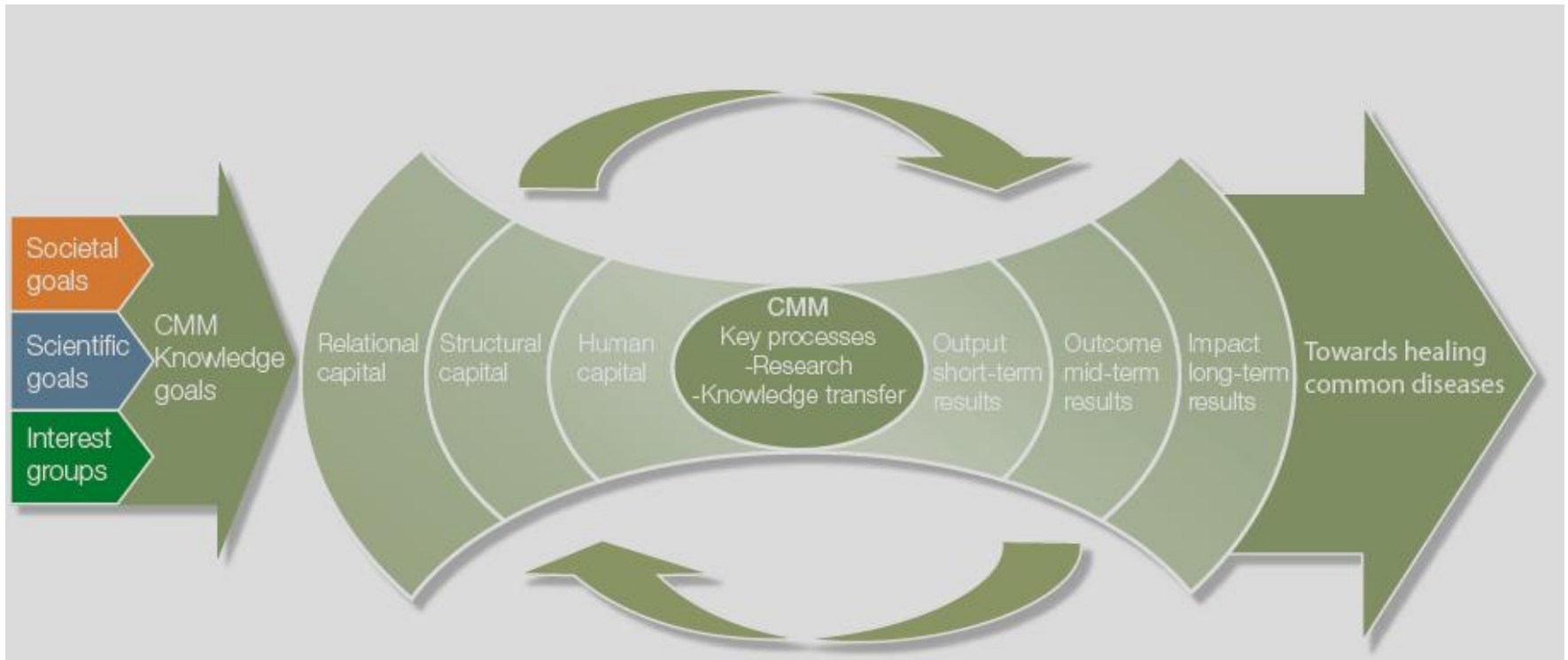
Internal Motives:

- To educate researchers about their colleagues' work.
- To avoid duplication of effort, encourage cross-pollination.
- To identify value drivers on which to model a sister institution.

External Motives:

- To attract holistic support from donors rather than earmarks for specific projects.
- To achieve transparency and accountability to benefactors.
- To shape CMM's institutional identity and strengthen its image as a global competitor.

Annual Intellectual Capital Reporting: The CMM Model



Benefits From CMM's Intellectual Capital Report:

- Easier for management to assess overall performance.
- More efficient use of resources.

External Reception:

- Donors continue to prefer direct conversations with CEOs.
- Well-received by media and competitors.
- Link between intellectual capital and efficiency measurement remains unclear.
- Information overload.

Helios Kliniken GmbH

Germany

Enterprise Overview:

- Owns 61 hospitals throughout Germany, with over 17,200 beds, including both acute care and long-term rehabilitation facilities.
- Nine HELIOS hospitals are affiliated with major teaching universities.
- HELIOS Research Center coordinates and funds clinical research in cooperation with the Max Delbrück Center for Molecular Medicine.
- Offers 94% of all medical services available in Germany.

Key Objectives:

- To expand market share in the German healthcare services industry, with a goal of € 2.3 billion in revenue by 2010.
- To increase hospital capacity and efficient use of internal resources.
- To assert a leading presence in the global research community.
- To attract and retain talented specialists.
- To acquire smaller hospitals.

Helios Kliniken GmbH

Genesis of Intellectual Capital Reporting in 2003

External Motives:

- To portray HELIOS as a competitive acquirer in an increasingly consolidated, privatized market.
- To communicate HELIOS' unique value to the investor community and government; to improve upon speculative grade ratings.
- To promote image as a desirable workplace and prevent loss of talent to neighboring Switzerland.
- To achieve transparency and accountability, particularly to workers' unions, which have strong bargaining power in Germany.

Internal Motives:

- To streamline operations in light of rising healthcare costs.
- To develop explicit performance targets.
- To refine and improve institutional design.

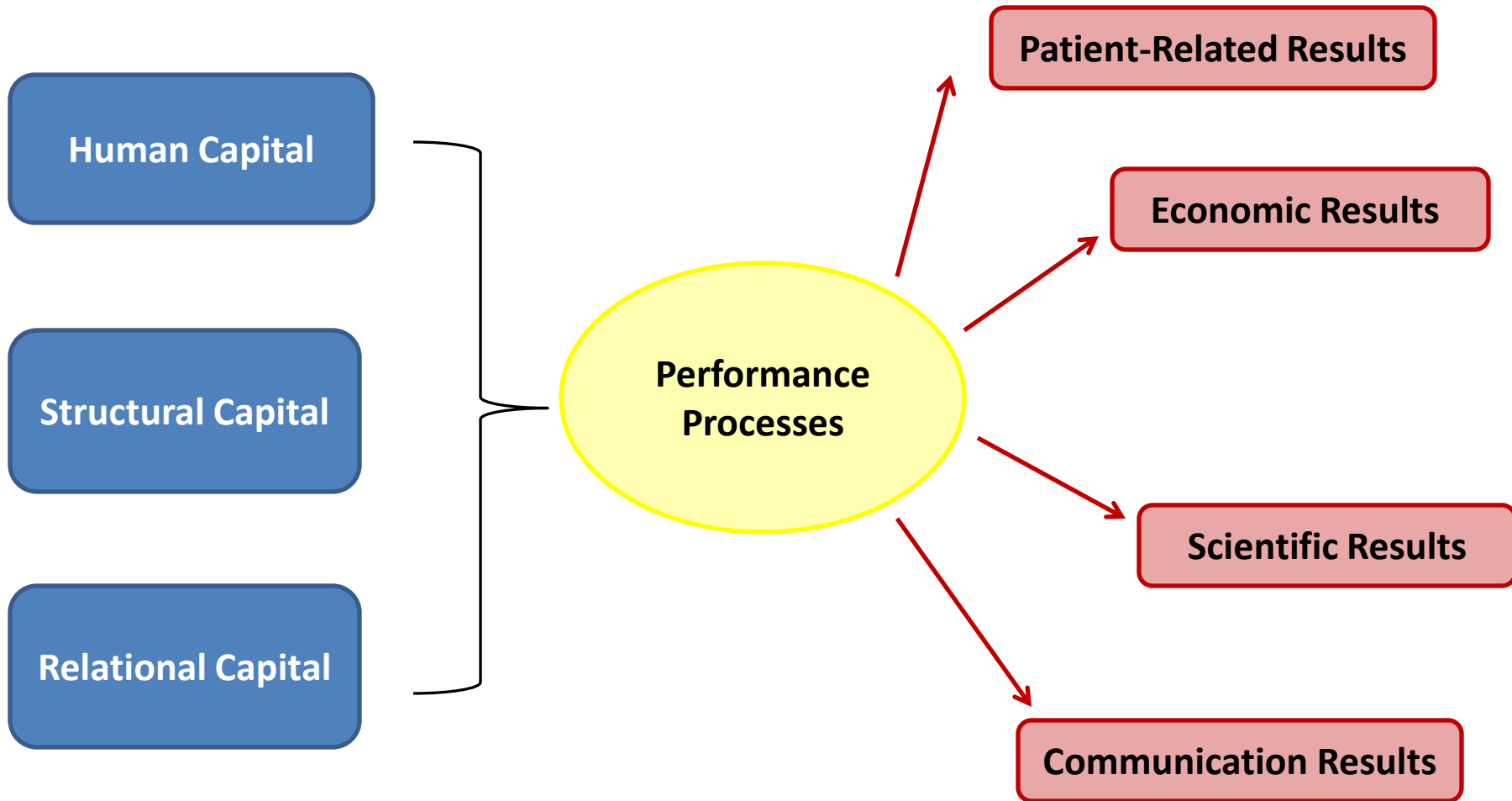
Annual Reporting

The HELIOS Model: Three Complementary Reports

- **Annual Report:** Traditional fiscal report, including corporate development, M&A data, and financial reporting.
- **Medical Report (since 2000):** Discloses routine quality assurance data as well as self-reviews and peer reviews carried out by the Medical Advisory Board and other independent experts.
- **Intellectual Capital Report (since 2003):** Describes knowledge assets, human capital, and process-oriented value.

Intellectual Capital Reporting

The HELIOS Model



Benefits of HELIOS' Intellectual Capital Report:

- Establishment of Helios Research Center, New European Surgical Academy, and online library.
- Improvement of training processes.

External Reception:

- Acquisition by Fresenius in 2005.
- Won “Knowledge Prize” Awarded by German Labor Authority in 2005.
- Link between intellectual capital and financial outcomes remains unclear.
- Investors generally ignore the report.

To What Degree Does Intellectual Capital Reporting Convey Value?

Key Success Factors	CMM's Report	HELIOS' Report
Inter-Departmental Synergies	Diagrams depicting links between different research groups and with external clinics	Number of “expert groups”; number of cases in the peer-review process
“Translational” Value of Current Research	Descriptions of how specific research areas can be applied in a clinical setting	Number of research contracts; number of current clinical trials sponsored, number of patients treated
Technology/Infrastructure Capacity	Descriptions of significant new equipment recently acquired; description of unique workspace	Lists of beds per hospital, IT workstations; hospital information systems; use of web resources
Effectiveness of Learning Environment	Descriptions of projects run by junior researchers	Number of apprenticeships,
Skill Level of Workforce	Breakdown of employees by employment type	Breakdown of employees by employment type
External Visibility	Numbers of journal articles, PhD theses	Numbers of users of the library portal, PubMed articles
Efficient Use of Capital	?	?

Conclusions:

- Intellectual capital reporting seems to encourage the efficient direction of resources by promoting cross-disciplinary synergies.
- The role of intellectual capital reporting in fundamentally altering external capital flows remains in question, because:
 - Key success factors are hard to quantify and communicate in a parsimonious and credible fashion.
 - Investor models are not designed to integrate non-financial information.
 - There is a danger of overload when analyst knowledge is limited.
- Financial and non-financial data are complementary.