

Auftaktveranstaltung

Wissenschaftsökonomie

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Universities as Enterprises

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Motivation for an Entrepreneurial University

- Knowledge intensive economies require a quicker transition of research results to the markets.
- Tighter government budgets increase the reactivity of public universities.
- Universities increasingly depend on additional funds for new and expensive research.
- Transfer as universities' "third mission".
- General call for the "entrepreneurial university".

Current Research Project:

Uni:prise – Universities as Enterprises

Federal Ministry of Education and Research (BMBF), 2011-2014

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Definition of a Business Model

A business model describes the rationale of how an organization creates, delivers, and captures value.

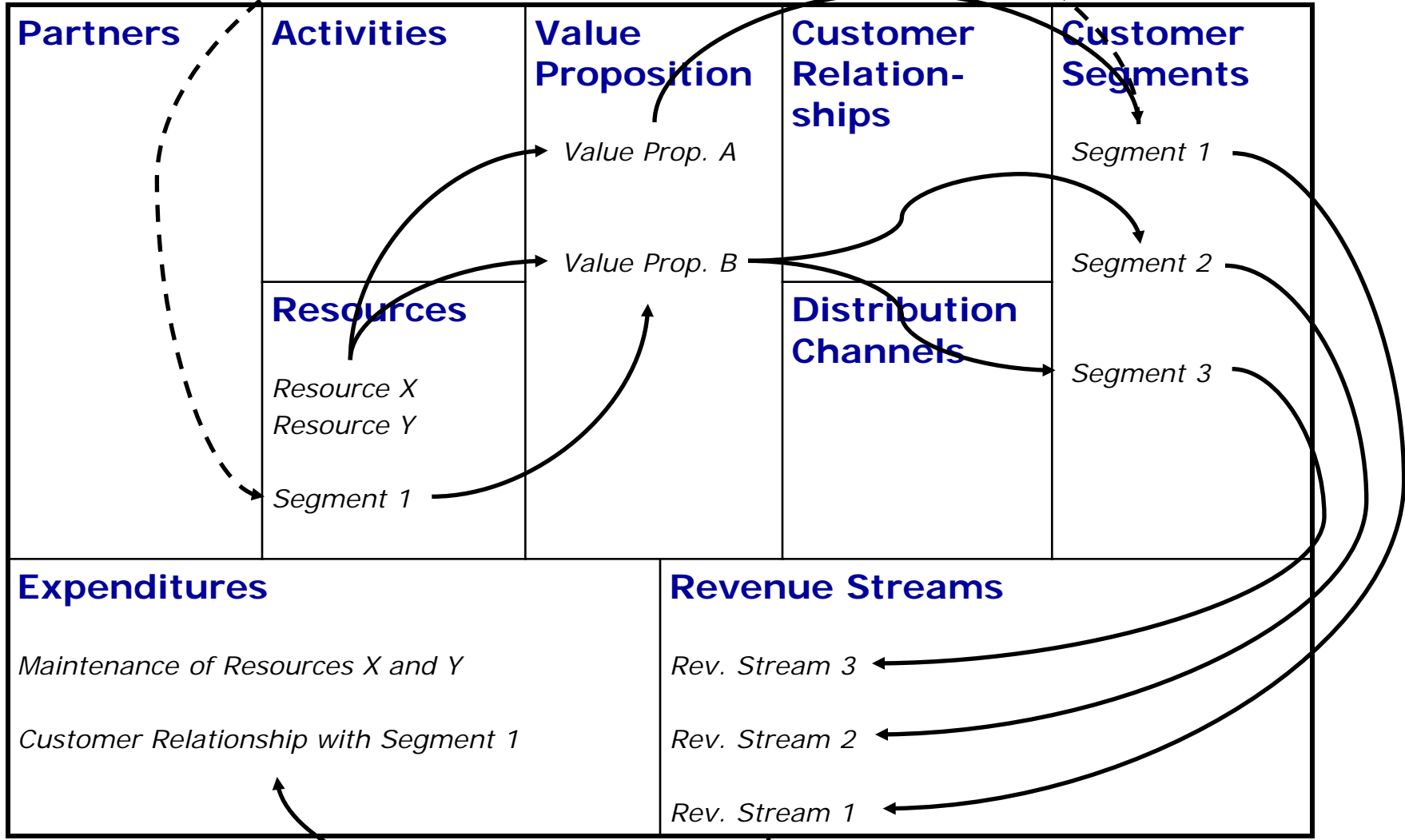
Alexander Osterwalder & Yves Pigneur
Business Model Generation, 2010

Components of a Business Model

Osterwalder & Pigneur: Business Model Generation, 2010

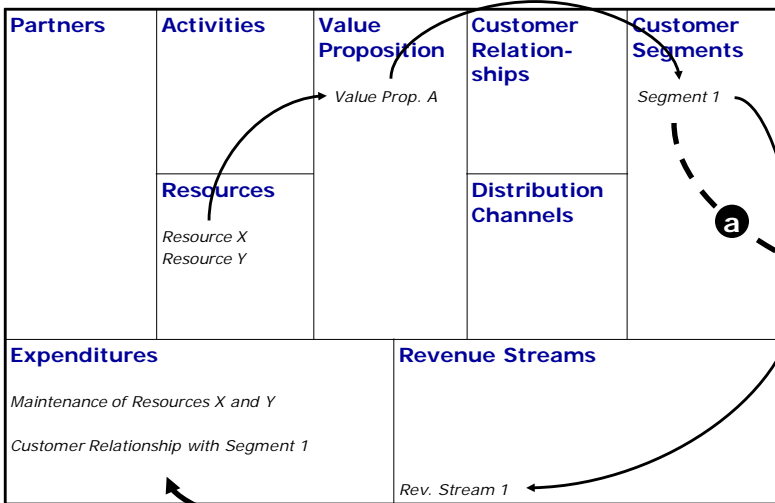
<p>Partners</p> <p><i>Who are the most important partners for value creation?</i></p> <p><i>Which activities are provided?</i></p> <p><i>Which resources are provided?</i></p>	<p>Activities</p> <p><i>Which activities for value creation are required?</i></p>	<p>Value Proposition</p> <p><i>What value is provided?</i></p> <p><i>What problem is solved?</i></p> <p><i>Which needs are satisfied?</i></p> <p><i>Which goods or services are offered?</i></p>	<p>Customer Relationships</p> <p><i>What is the relationship with each customer segment?</i></p> <p>Distribution Channels</p> <p><i>Which are the main distribution channels?</i></p>	<p>Customer Segments</p> <p><i>For whom is value created?</i></p>
<p>Expenditures</p> <p><i>Which are the most important expenditures?</i></p> <p><i>Which activities/resources create the highest costs?</i></p>		<p>Revenue Streams</p> <p><i>Which values are being paid for?</i></p> <p><i>How are payments made?</i></p> <p><i>What are the relative shares of individual revenue streams?</i></p>		

Example Business Model: The Rationale of Value Creation

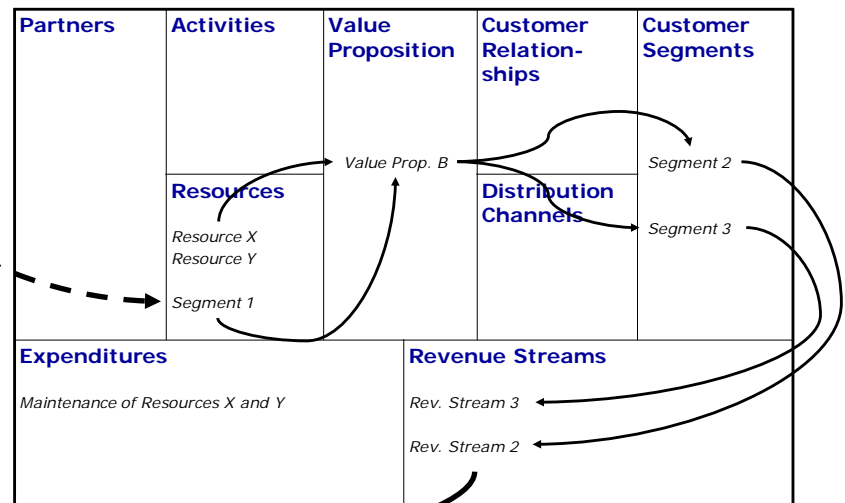


The Modular Characterization of the BM

Module A



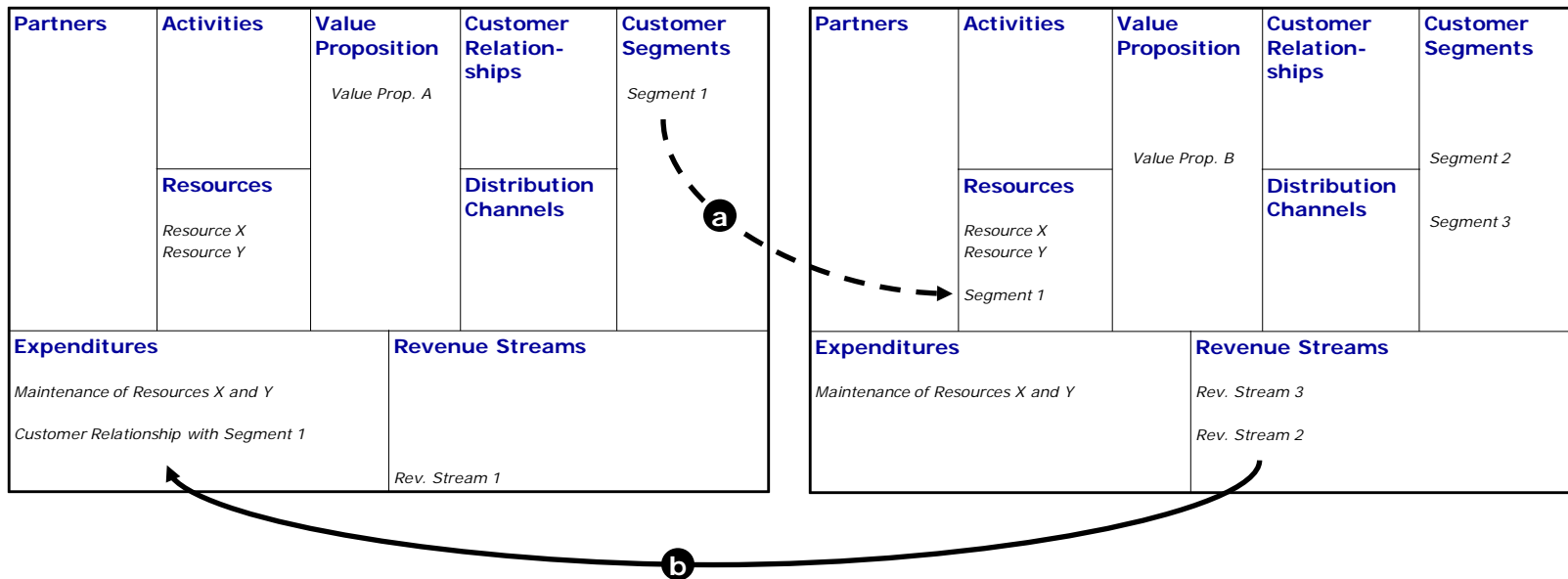
Module B



The Modular Characterization of the BM

Module A

Module B



- The value creation for customer segment 1 in module A is crucial for the value creation for customer segments 2 and 3 in module B.
- The revenues of module B subsidize the value creation in module A.

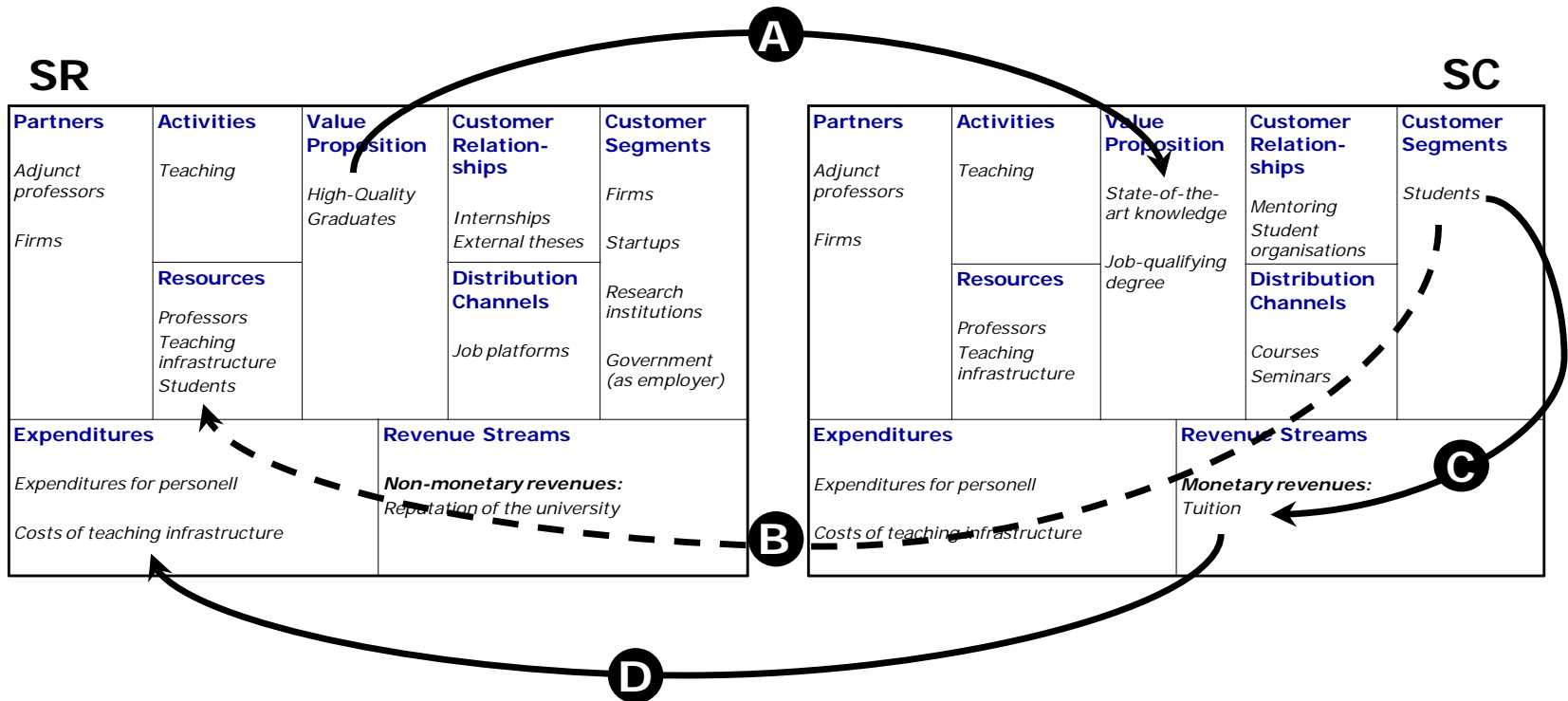
University Module SR: Students as Resources

<p>Partners</p> <p><i>Adjunct professors</i></p> <p><i>Firms</i></p>	<p>Activities</p> <p><i>Teaching</i></p>	<p>Value Proposition</p> <p><i>High-Quality Graduates</i></p>	<p>Customer Relationships</p> <p><i>Internships</i></p> <p><i>External theses</i></p>	<p>Customer Segments</p> <p><i>Firms</i></p> <p><i>Startups</i></p> <p><i>Research institutions</i></p> <p><i>Government (as employer)</i></p>
<p>Expenditures</p> <p><i>Expenditures for personell</i></p> <p><i>Costs of teaching infrastructure</i></p>	<p>Resources</p> <p><i>Professors</i></p> <p><i>Teaching infrastructure</i></p> <p><i>Students</i></p>		<p>Distribution Channels</p> <p><i>Job platforms</i></p>	
	<p>Expenditures</p> <p><i>Expenditures for personell</i></p> <p><i>Costs of teaching infrastructure</i></p>		<p>Revenue Streams</p> <p><i>Non-monetary revenues:</i></p> <p><i>Reputation of the university</i></p>	

University Module SC: Students as Customers

<p>Partners</p> <p><i>Adjunct professors</i></p> <p><i>Firms</i></p>	<p>Activities</p> <p><i>Teaching</i></p>	<p>Value Proposition</p> <p><i>State-of-the-art knowledge</i></p> <p><i>Job-qualifying degree</i></p>	<p>Customer Relationships</p> <p><i>Mentoring</i></p> <p><i>Student organisations</i></p>	<p>Customer Segments</p> <p><i>Students</i></p>
	<p>Resources</p> <p><i>Professors</i></p> <p><i>Teaching infrastructure</i></p>		<p>Distribution Channels</p> <p><i>Courses</i></p> <p><i>Seminars</i></p>	
<p>Expenditures</p> <p><i>Expenditures for personell</i></p> <p><i>Costs of teaching infrastructure</i></p>			<p>Revenue Streams</p> <p><i>Monetary revenues:</i></p> <p><i>Tuition</i></p>	

The University as a (Private) School

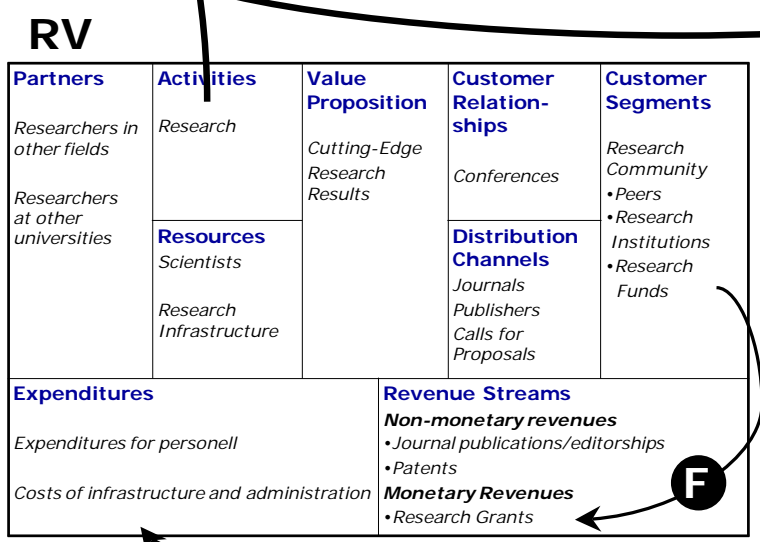
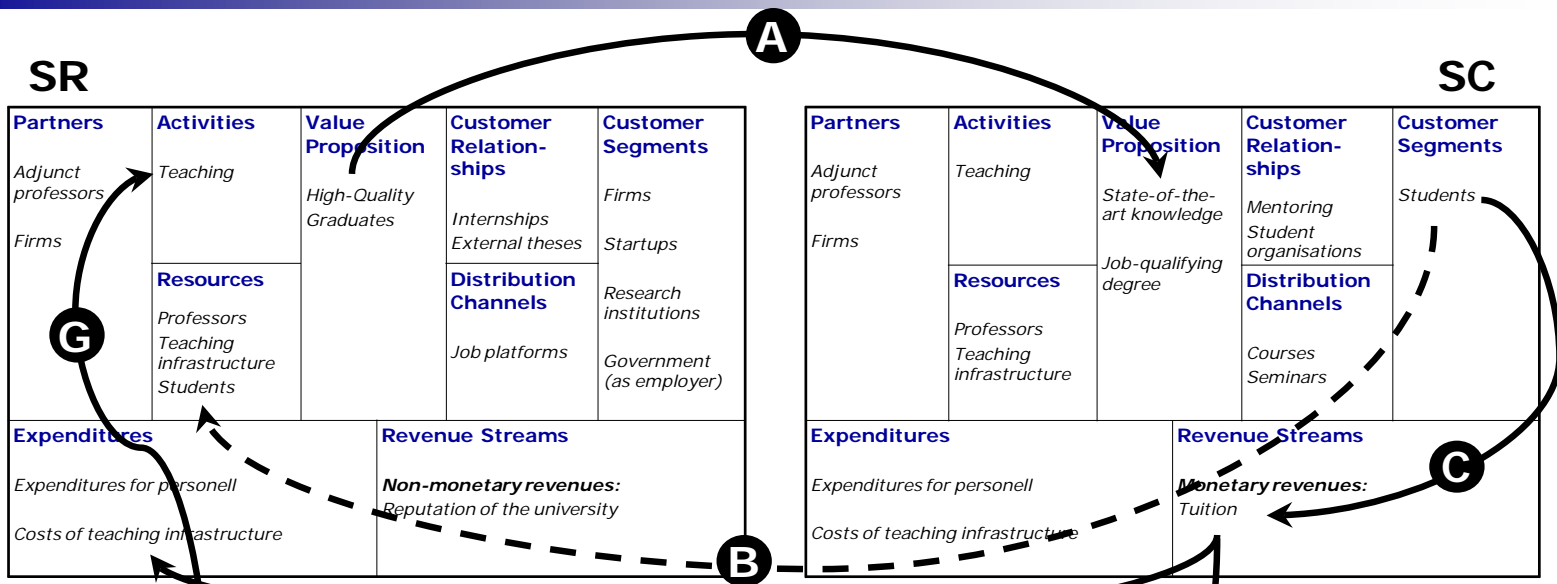


- The value that students perceive as customers is determined by the value that potential employers perceive and the incomes they are willing to pay.
- In order to attain the value of a university degree, students must (pay to) enter the university education process.

University Module RV: Research as a Value Proposition

<p>Partners</p> <p><i>Researchers in other fields</i></p> <p><i>Researchers at other universities</i></p>	<p>Activities</p> <p><i>Research</i></p>	<p>Value Proposition</p> <p><i>Cutting-Edge Research Results</i></p>	<p>Customer Relationships</p> <p><i>Conferences</i></p>	<p>Customer Segments</p> <p><i>Research Community</i></p> <ul style="list-style-type: none"> • <i>Peers</i> • <i>Research Institutions</i> • <i>Research Funds</i>
	<p>Resources</p> <p><i>Scientists</i></p> <p><i>Research Infrastructure</i></p>		<p>Distribution Channels</p> <p><i>Journals</i></p> <p><i>Publishers</i></p> <p><i>Calls for Proposals</i></p>	
<p>Expenditures</p> <p><i>Expenditures for personell</i></p> <p><i>Costs of infrastructure and administration</i></p>		<p>Revenue Streams</p> <p><i>Non-monetary revenues</i></p> <ul style="list-style-type: none"> • <i>Journal publications/editorships</i> • <i>Patents</i> <p><i>Monetary Revenues</i></p> <ul style="list-style-type: none"> • <i>Research Grants</i> 		

The (Purely) Private University

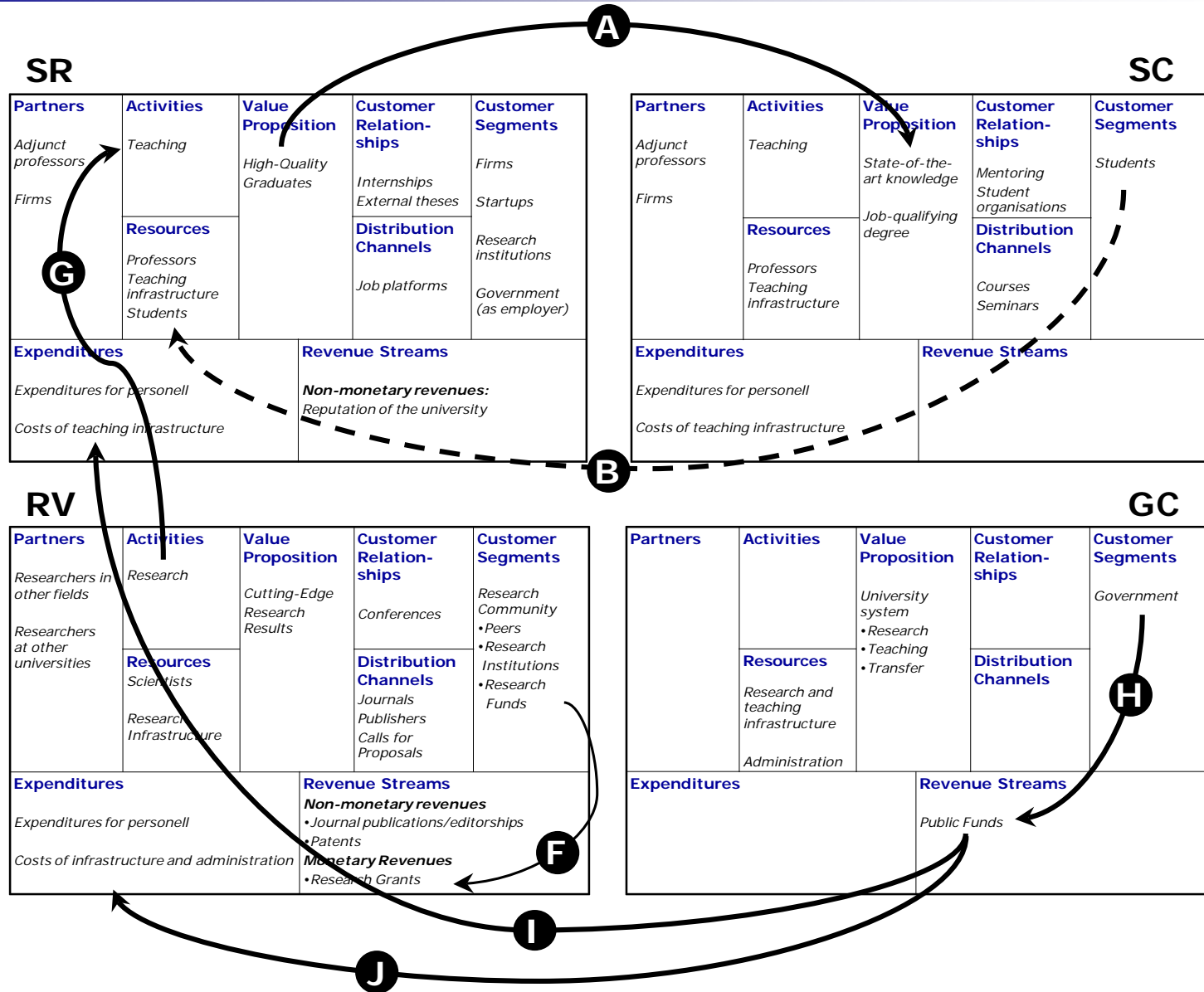


- The university is organized in schools.
- Research departments are associated with schools.
- Research is subsidized by teaching.

University Module GC: The Government as a Customer

Partners	Activities	Value Proposition <i>University system</i> • <i>Teaching</i> • <i>Research</i> • <i>Transfer</i>	Customer Relationships	Customer Segments <i>Government</i>
	Resources <i>Research and teaching infrastructure</i> <i>Administration</i>		Distribution Channels	
Expenditures <i>Research and teaching infrastructure</i> <i>Administration</i>			Revenue Streams <i>Public Funds</i>	

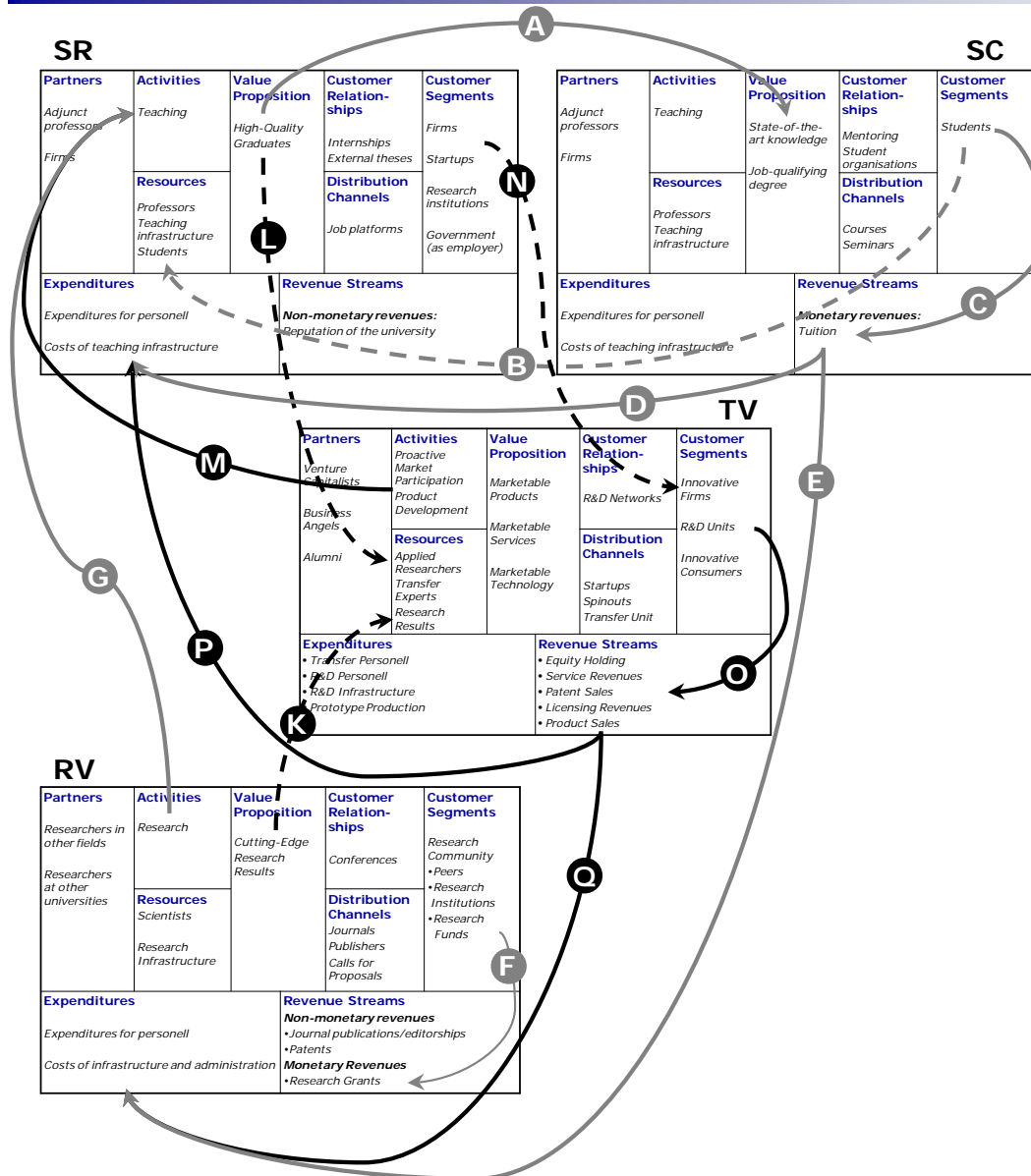
The (Purely) Public University



University Module TV: Transfer as a (New) Value Proposition

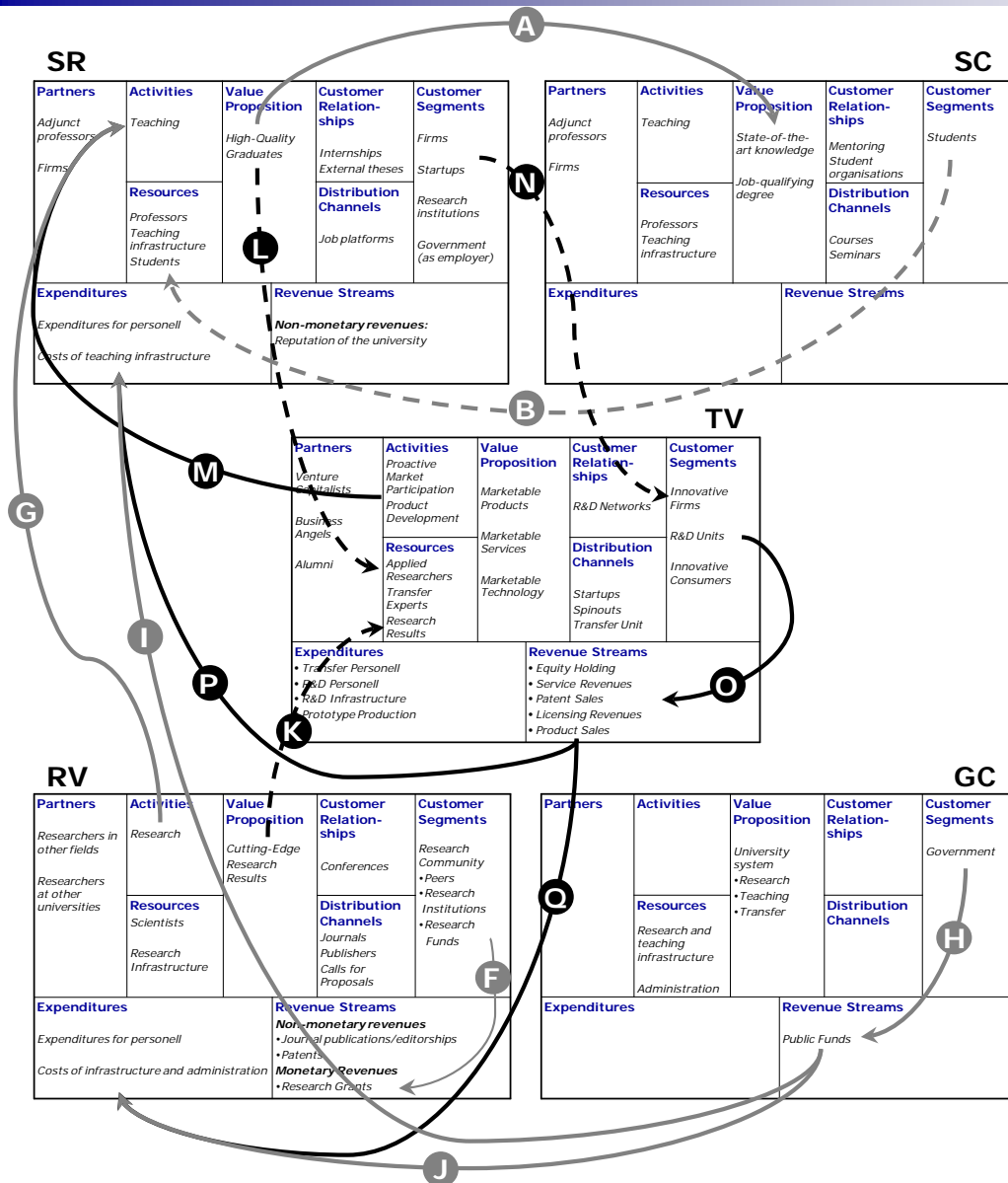
Partners	Activities	Value Proposition	Customer Relationships	Customer Segments
Venture Capitalists	Proactive Market Participation	Marketable Products	R&D Networks	Innovative Firms
Business Angels	Product Development	Marketable Services	Distribution Channels	R&D Units
Alumni	Resources Applied Researchers Transfer Experts Research Results	Marketable Technology		Innovative Consumers
Expenditures			Revenue Streams	
<ul style="list-style-type: none"> • Transfer Personell • R&D Personell • R&D Infrastructure • Prototype Production 			<ul style="list-style-type: none"> • Equity Holding • Service Revenues • Patent Sales • Licensing Revenues • Product Sales 	

The (Purely) Private University with Transfer



- Transfer revenues become a substitute for student tuition (module SC)
- Focus of the university shifts from students as customers to students as transfer agents.
- Increased demand for graduates as research employees.
- Basic research becomes a prerequisite for applied research.

The (Purely) Public University with Transfer



- Transfer revenues become a substitute for public funds (module GC)
- University loosens its dependence on the government.
- Conflict between cost-intensive basic research and income-generating applied research.
- Danger for non-marketable research (e.g., humanities).

Implications for an Entrepreneurial University

- The instalment of the the transfer module can be regarded as a significant business-model innovation for both the private as well as the public university.
New customer orientation, new human resources, new market-oriented activities.
- Important for the success of the transfer module is the input of marketable research results.
Access to research results requires effective legal or incentive structures.
- The effectiveness of the transfer module depends on its organizational implementation.
A division inside the university vs. an outside transfer unit.
- The success of the entrepreneurial university requires a proactive transition.
Inside (proactive) incentive rather than outside (reactive) pressure to install the transfer module.