

Matmon Project



A university “big bang,” and a grant module implementation

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Technion Fast Facts

- **Israel's Institute of Technology: a Research University. Basic Sciences, Engineering, Medicine, Architecture.**
- **The Technion was founded in 1924 in Haifa, Israel.**
- **Students Statistics (2003) Total 13,188 .**
 - Undergraduate Studies: 9,690.
 - M.Sc. Candidates: 2,814.
 - Ph.D./D.Sc. Candidates : 684.
- **Total Graduates (from 1927-1999 inclusive) 68,250.**
- **25 Academic units.**
- **597 Faculty Members.**
- **Technion City 1,325,000 square meters.**
- **Built-up Area 417,216 square meters.**

<http://www.technion.ac.il>



Technion Achievements

- Technion graduates comprise the majority of Israeli-educated scientists and engineers, constituting over 70% of the country's founders and managers of high-tech industries.
- 135 out of every 10,000 workers in Israel are scientists and engineers, compared to the U.S., in second place with 85 out of every 10,000 workers.
- Nine out of every 1,000 workers are engaged in R&D, nearly double the rate of the US and Japan.
- 74% of managers in Israel's electronic industries hold Technion degrees.

<http://www.technion.ac.il>



Project Goals

- Improving and consolidating Business Processes:
Paperless, on-line, user-friendly processes.
- Replacing several Legacy systems, **unifying grant systems.**
- Accelerated Project (9 month), leading to independent maintenance.
- Implementing ERP in:
 - Technion Institute of technology (NPO).
 - Technion Research and Development Foundation (TRDF) Ltd., including
 - Research authority: manages grants
 - 4 Business units: sell services
 - Intellectual property/patent management unit
 - Teaching unit: academic and professional courses
 - Different rules (financial+tax) apply to Technion vs TRDF



Project Scope

- **mySAP Business suite**
 - Modules: FI, CO, FM, MM, PM, PS, SD
 - Mini HR.
- **Industrial Solution Public Sector**
- **Grant Management (first suite release version).**
- **BW**



Project Risks and Challenges

- **Business processes:**
 - First comprehensive University Grants, Large scale Development.
 - Using services process for large construction projects.
 - Special needs in Import Process.
 - Management of Chemical Warehousing and dangerous materials.
- **Project:**
 - Wide coverage, 7 companies
 - Intensive timetable (**less than 9 months**).
 - Two Companies Go Live in one month (**with the same staff!**).
- **Technical:**
 - First suite with full release Grant Management version.
 - Early adaptors of 4.7 in Israel.
 - Upgrade GM Module in Realization stage (**3 month before going live!**).
 - New Country Version With New Code Page (Hebrew English problems) (**Heavily Affected Conversion team**).



Project Infrastructure

- mySAP Business Suite Version 4.7.
- Industrial Solution Public Sector Version 200.
- Operation system Windows NT 2000.
- Database SQL server 2000.
- EMC Storage, BCV (periodic snapshots), 24 X 6.5 availability.
- Production Hardware: 1 Database Sever, 4 Application Servers, BW server, Special Purpose Servers (Printing, Banks, Fax, etc.)
- 370 licenses.
- 300 Researcher licenses.
- Mostly intranet/GUI, some Citrix – internet access.



Project Status and achievement

- **Going Live on schedule Technion 6/1/2004, TRDF Ltd. 18/1/2004.**
- **Most Modules implemented in all seven organizations.**
- **Necessary data conversion ready for day of going live.**
- **Open issues:**
 - Processes:
 - Import: S.A.P. solution not adequate.
 - Goods issue process: S.A.P. solution not adequate.
 - Misc. processes (e.g. related to construction).
 - Technion independence: IT and professionals
 - Interfaces and data conversion.
 - Reports.



Project Status and achievement

Future plans:

- Address open issues
- Enlarge scope of SD

Statistics:

- 19,000 open grants.
- Average of 180 Concurrent users (using timeout).
- Within 45 days of go live:
 - 3,000 purchase orders per month.
 - 1,500 Sales Order per month.



GM – Grants Management

Implemented at the Technion by Shahaf Yaari
Ness Technologies



- **What is GM?**
- **Technion implementation (general)**
- **Main business processes**
- **Research grants**
- **Developments and modifications**
- **Statistics**



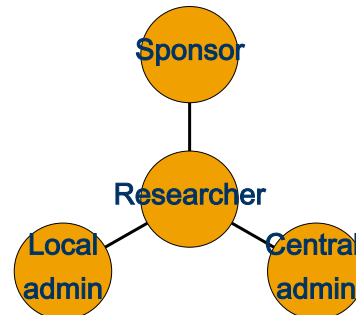
- **Why GM?**
- **Administration of Grant processes**
- **Budgeting and AVC in Grant currency/time**
- **Business processes according to sponsor's rules**
- **Flexibility of entities management**



Technion view of a Research Univ.:

The researcher is
all important

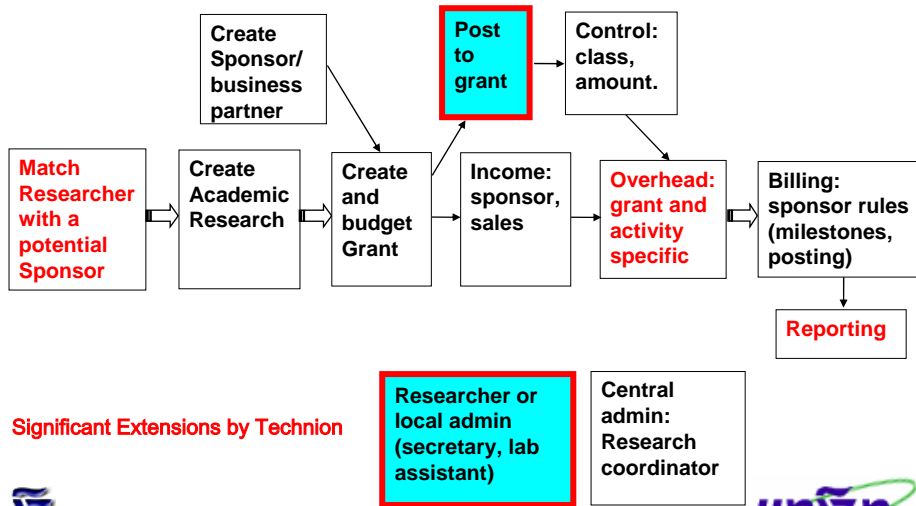
The researcher owns the
grant



- **Business processes are dictated by sponsors, in some cases by researcher.**
- **Grant management should adapt.**
 - **Must facilitate management by researcher according to rules as above.**
- **Must cover all aspects and phases of management: initiation through reporting including payments, auditing.**



Scope of business processes

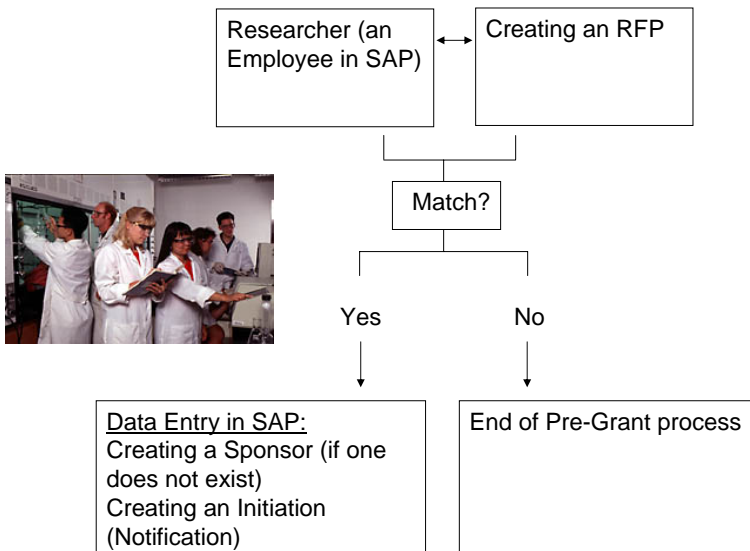
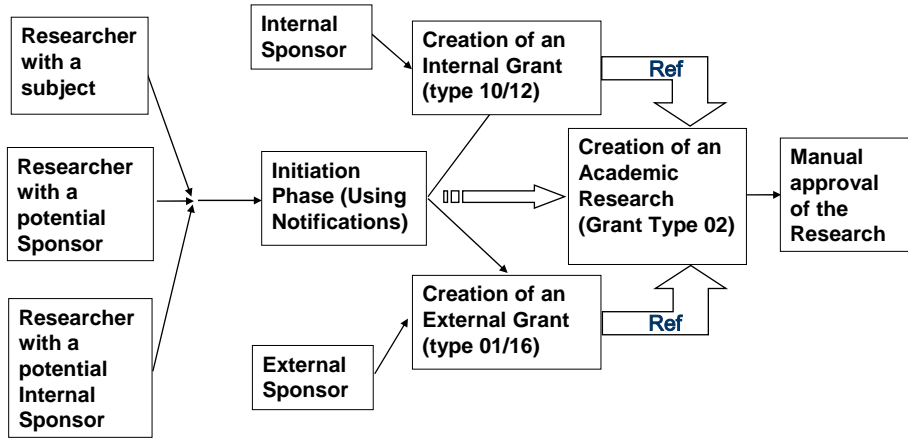


Technion Grant Types:

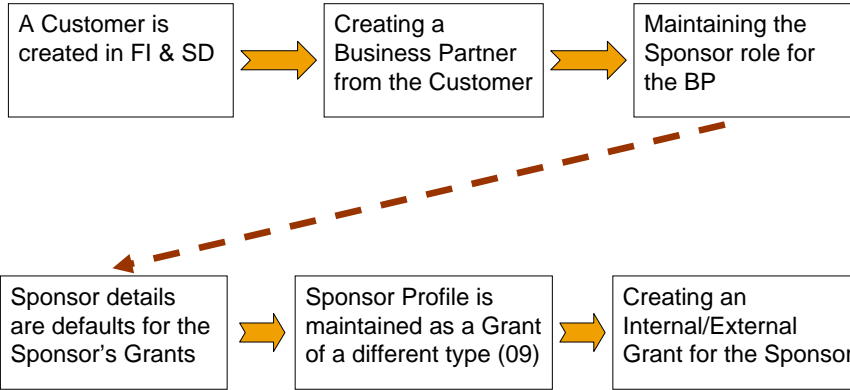
- › Academic Research
- › Research Grants
- › Researcher Reserves
- › Labs & Research Centers
- › Funds
- › Projects
- › Others



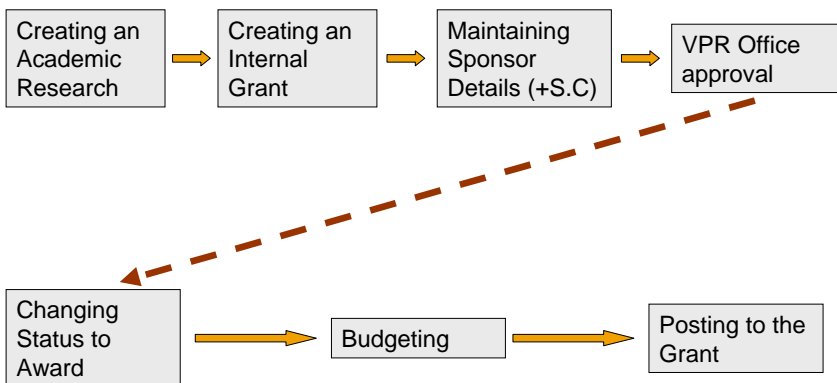
Pre-Grant and Pre-Award Process:



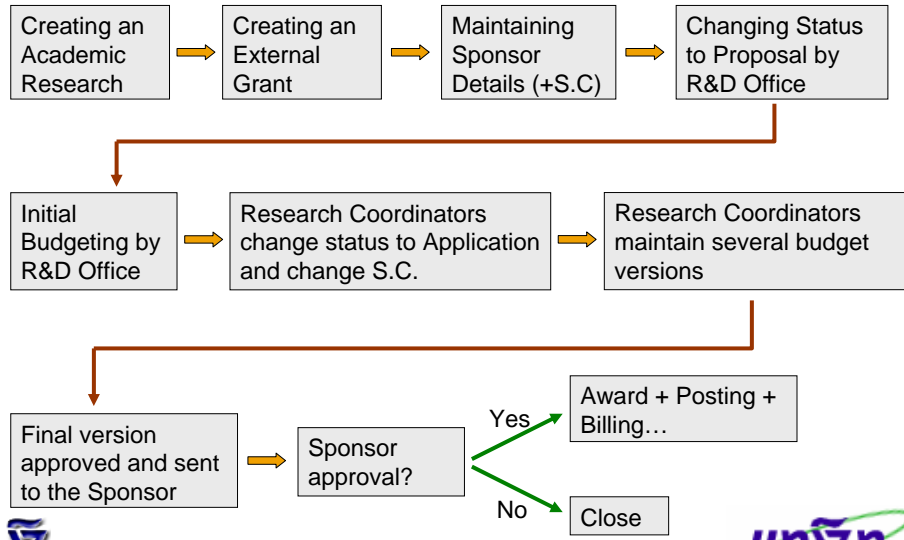
Creating and Maintaining a Sponsor:



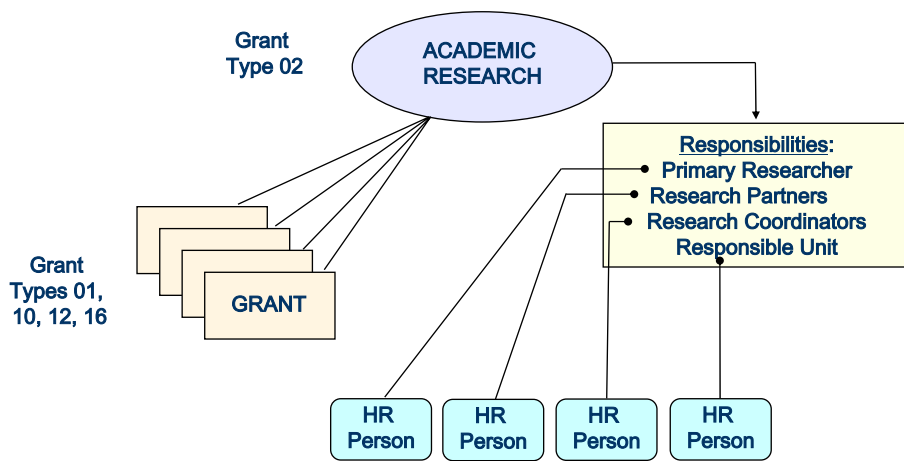
Internal Grant Lifecycle:



External Grant Lifecycle:

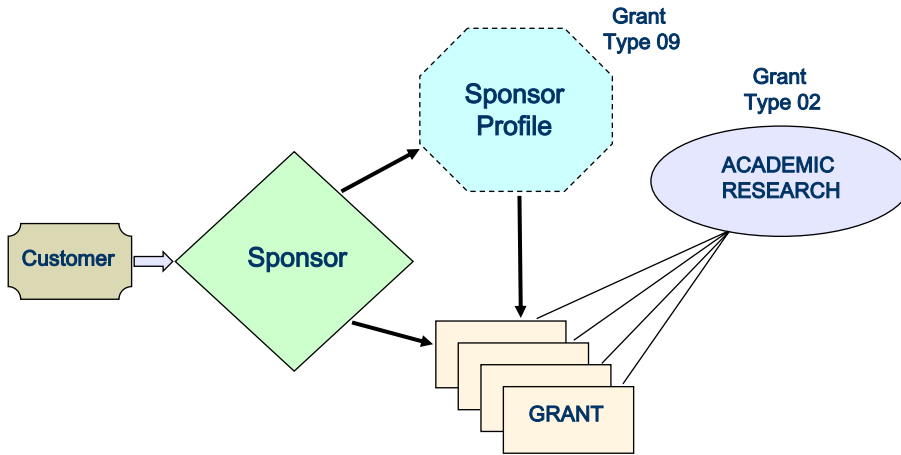


Entities Relations:



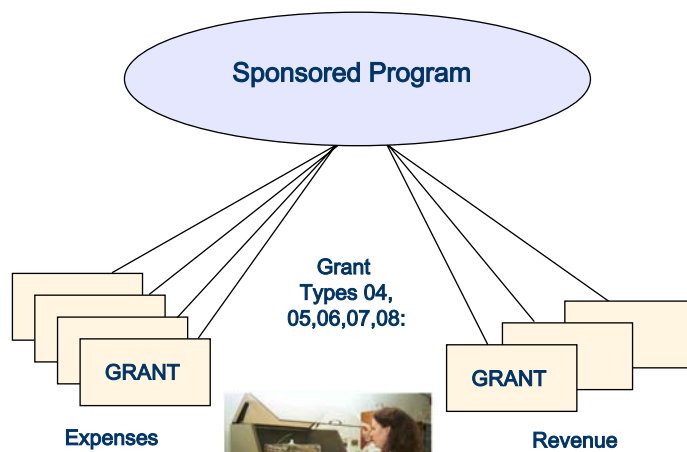
Research Grants

Sponsor + Sponsor Profile:



Projects and Funds

Entities relations:



Master data enhancements

Through BDT:

Grant Master:

- Academic research data
- Grant data
- Project/Fund data

Business Partner

Through BAdI:

Sponsored Program



Grant Master – Enhancement via BDT

The screenshot displays the SAP Grant Master interface. The main window is titled "Change Grant Master" and shows a form for grant data. The data includes:

Grant	2000176	Disc 339		
Grant Type	01	External Grants		
Sponsor	31	מכון גליל		
Copied from		Deletion Indicator		
Researcher Notification Date	11.02.2004	Overhead Code	5	תקורת חרות-10%
Funding Start Date	01.01.2002	VAT Indicator	3	מסור/מסור/מסור
Funding End Date	31.12.2005	Sponsor VAT	2	VAT obligatory
Salary Allowed for Primary Researcher		Initiation Number		10000004
Amount Approved for Researcher Salary	10.050.00	Reflection Grade		
Percentage Approved for Researcher Salary	13.50	Ownership		
Researcher Salary Approved from	02.04.2003	Relevant for PI Printing		<input type="checkbox"/>
Researcher Salary Approved to	18.06.2004			
Paying customer	700069			
Other PI Salary Note	The other PI's will receive 12% a month for their hard and demanding work. All other researchers will receive a round bubble gum.			
Immigrant Scientist Overhead				
Overhead Distribution Code	2	15% -> 10%		
Mixed Participation in Immigrant Scientist's Salary				
Cost Center	70197			
General Note	This Grant is just an example!			



Revenue Increasing Budget:

- Based upon revenues and/or receiving (VT 99/57)
- Enables multiple relations:
 - Multi-Classes
 - Multi-Grants (Many revenue grants – one budgeted grant.
One revenue grant – many budgeted grant)
- Enables revenue forecast as budget increasing factor
- Executed periodically



Overhead Distribution:

- Distribution of charged overheads
- Different IDC types: Research Grants – Based on actual expenses. Labs – Based on actual revenues.
- Multiple Receiving parties: VPR (Vice President of Research), Responsible Unit, Research Authority
- Flexible percentage per Grant/Class
- Flexible Percentage per Receiving Party



Authorizations via Responsibilities:

- > Researchers should not view/post to grants of their colleagues
- > Ditto for Local (HR Unit) Administrators
- > Use BAdi's + Enhancements to call an Authorization function
- > Check Responsibility table for each Grant per Resp type, User and Business process.



- > Flexible – authorization at grant level



Managed by users – not IT!



Responsibilities

Resp	Description	Type	Object type	ID	Name	Valid from	Valid to
00	Primary Researcher	P	Person	1011	יוכי מיכיל	01.01.2003	31.12.2006
01	Additional Primary Researcher	P	Person	1036	עפרן עפרן	01.01.2003	31.12.2006
02	Research Partner	P	Person	1002	עפרן עפרן	01.01.2003	31.12.2006
03	Research Assistant	P	Person	1004	יוכי מיכיל	01.01.2003	31.12.2006
12	Research Coordinator	P	Person	1019	קרין עפרן	01.01.2003	31.12.2006
21	Responsible Unit	O	Organizational unit	72100	FACULTY OF MATHEMATICS	01.01.2003	31.12.2006
20	Primary Researcher's Unit	O	Organizational unit	72200	DEPARTMENT OF GENERAL	01.01.2003	31.12.2006
13	Head of Administration	P	Person	1015	יוכי מיכיל	01.01.2003	31.12.2006
05	External Partner	P	Person	1000	עפרן עפרן	01.01.2003	31.12.2006



Currency Translation Logic

- Modify the GM translation logic – Update the GM ledger according to the FI translation rates for all transactions through FI.
- Business case: allow single source of information – for researcher, research coordinator, sponsor's auditors.
- Exceptions:
 - Trans. Currency = Grant Currency (Copy)
 - Grant Currency = Local Currency (Copy)
 - Grant Currency = 2nd Local Currency (Copy)



Over 18,000 active grants:

- 2863 Research Grants
- 4713 Academic Researches
- 5131 Funds
- 3884 Projects
- Over 1000 Others (Labs, Chairs, Named Lecturers, Admin etc.)



Concluding remarks

- GM seen as panacea for grant process. Requires
 - Pre-award (without CRM)
 - Related details (Sabbaticals, research interests)
 - Research (Abstract, publications, deliverables-reports)
- Required flexibility to conform to researcher and sponsor rules.
 - Accounting and controlling
 - Authorizations
- Required flexibility to accommodate administrative structures.
- Integration



Large, complex implementation of GM works at Technion.



Did we meet our goals?

- ✓ Improving and consolidating Business Processes.
- ? Paperless, on-line, user-friendly processes.
- ✓ Replacing several Legacy systems, unifying grant systems.
- ✓ Accelerated Project (9 month).
- ? leading to independent maintenance.

Bottom line: system is working, much left to do.

