

OVERVIEW OF JAPANESE BIOTECHNOLOGY INDUSTRY

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QUALITY QUEST AUSTRALIA PTY.LTD.

- CURRENT AND PREDICTED MARKET
- DRIVERS AND STRUCTURE OF THE INDUSTRY
- OPPORTUNITIES FOR AUSTRALIAN COMPANIES

JAPANESE BIOTECH MARKET 2001/2010

[UNIT: BILLION YEN≐\$A13 MILLION, SOURCE: METI 2002]

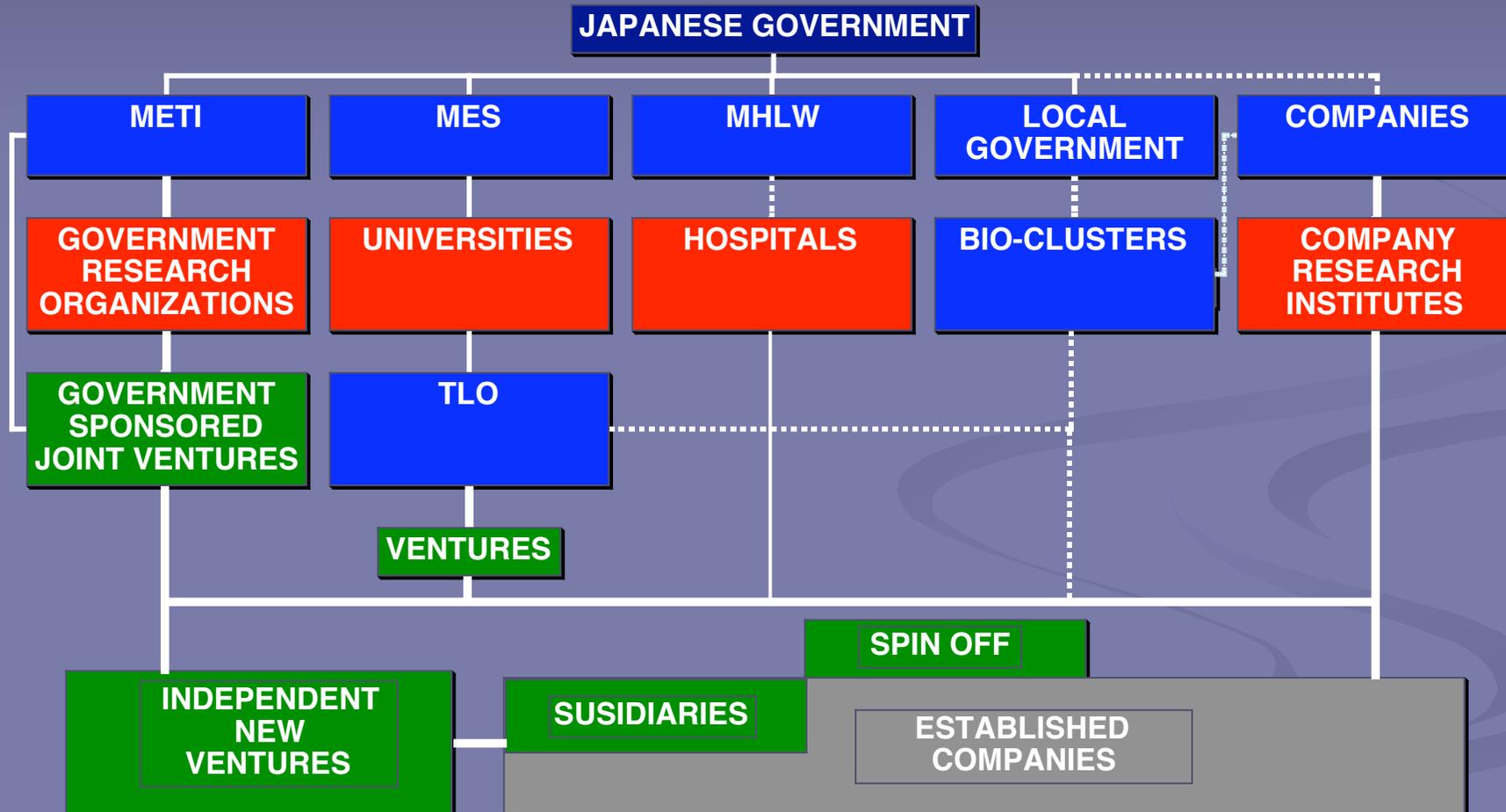
SECTOR	2001	2010
HUMAN HEALTH	536	8,400
AGRI-FOOD	367	6,300
BIOPROCESS	244	3,600
ENVIRONMENT & RESOURCES	3	600
BIOTOOL	140	3,100
BIOINFORMATICS	29	2,200
SERVICES & OTHERS	26	800
TOTAL	1,344	25,000

FOCUS 21

ECONOMY REVITALIZATION PROJECT

- BIO - IT EQUIPMENT
- GLYCOPROTEOMICS
- PROTEOMICS
- NANO - BIOTECHNOLOGY

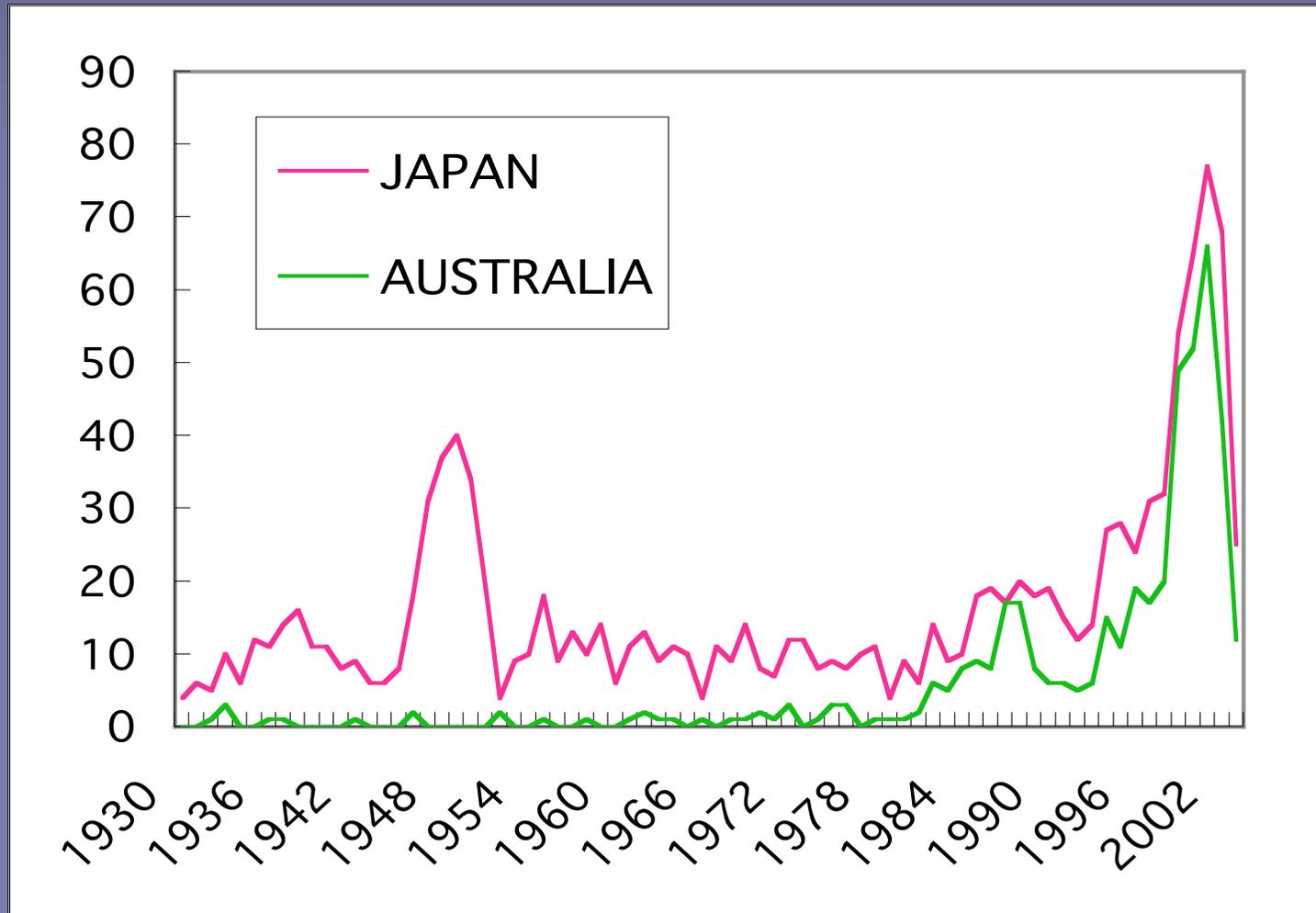
DRIVERS AND STRUCTURE OF BIOTECH INDUSTRY IN JAPAN



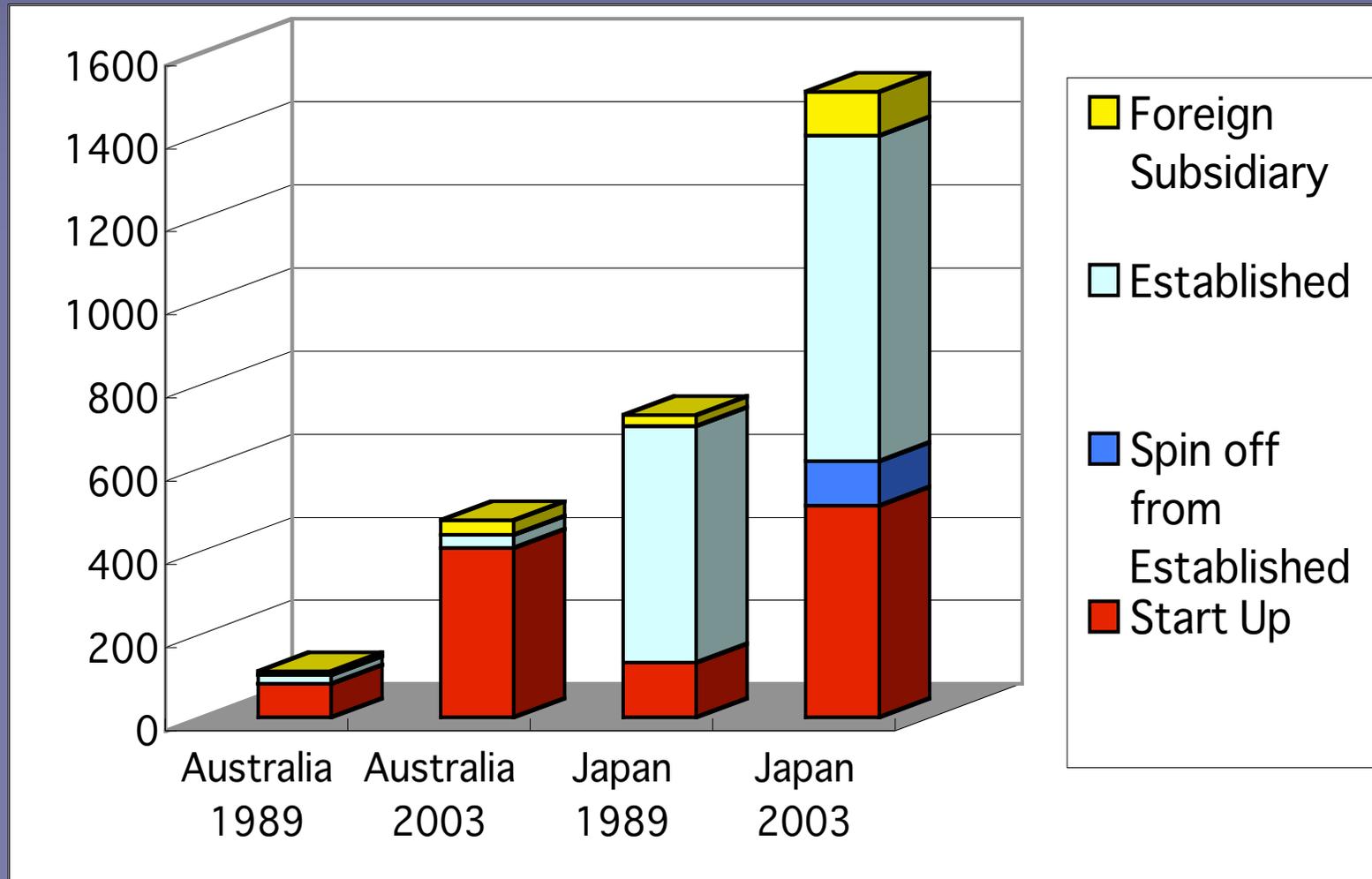
Q: HOW MANY BIOTECH START-UPS IN JAPAN ?

- A. SMALL NUMBER (YOUR IMPRESSION)
- B. < 100 (ERNST & YOUNG, 2002)
- C. 387 (JBA, DEC.2003)
- D. 600+ (OUR DATABASE, FEB.2004)

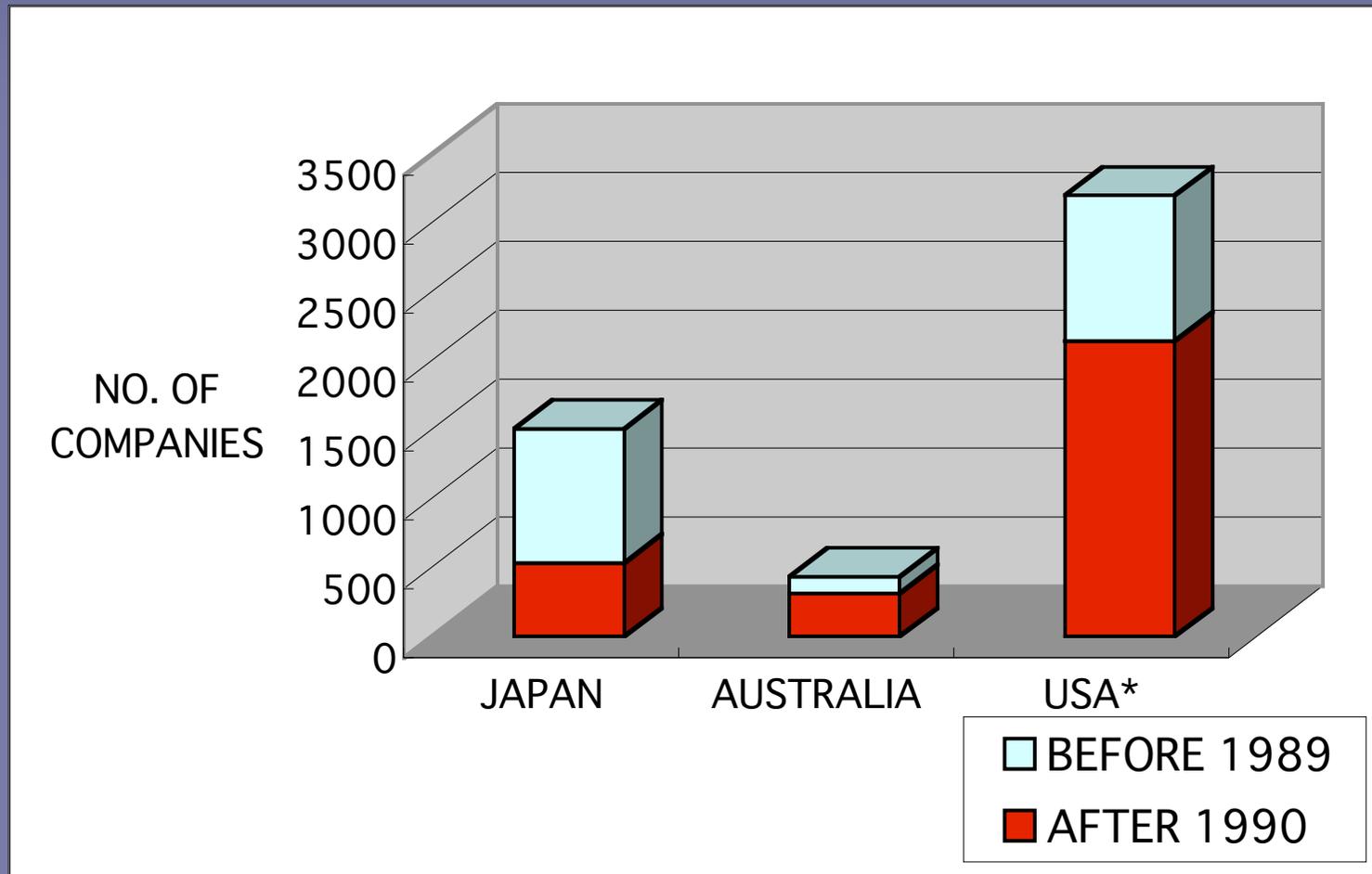
YEAR OF ESTABLISHMENT OF BIOTECH COMPANIES IN JAPAN & AUSTRALIA



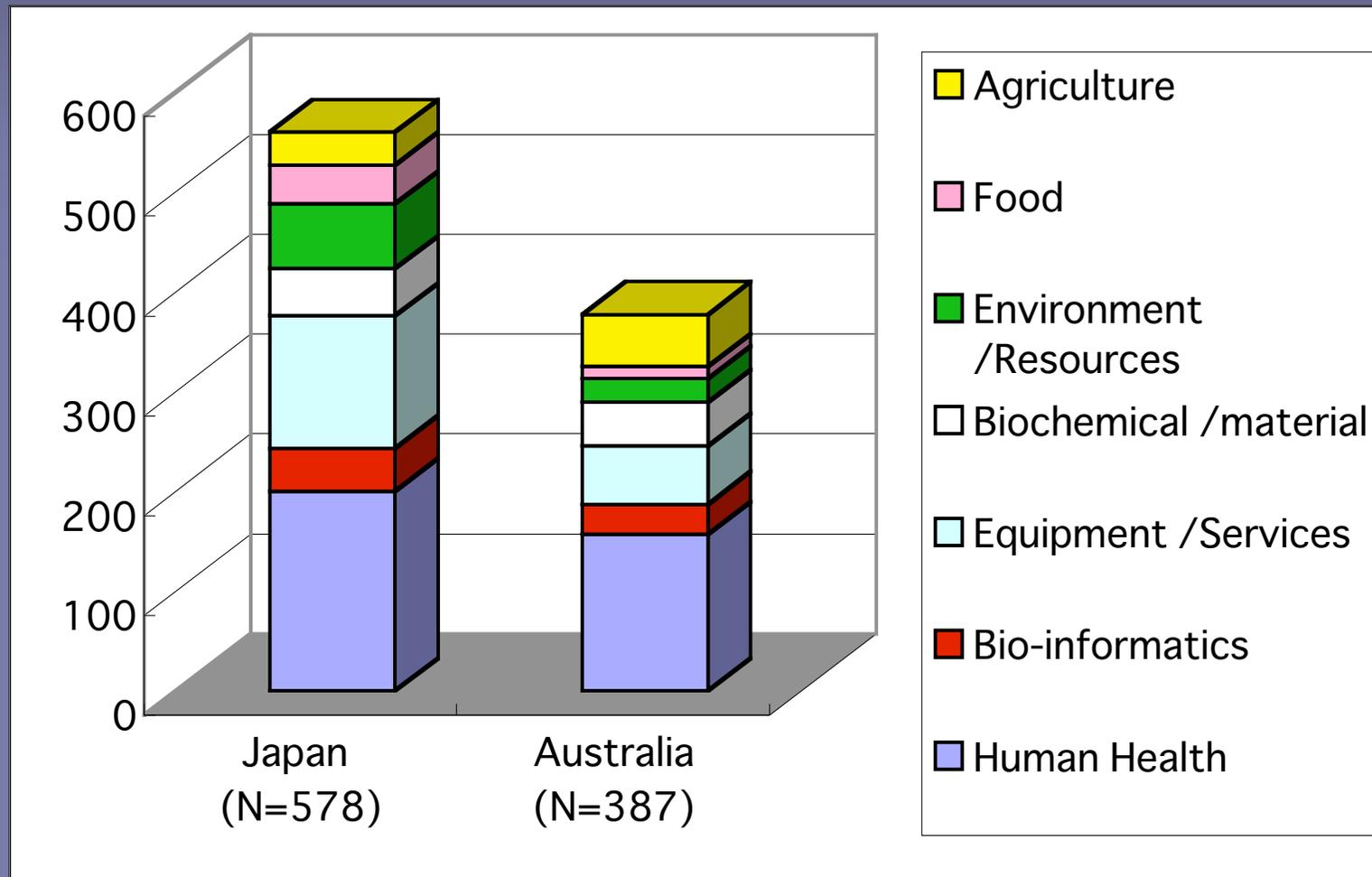
COMPARISON OF NUMBER OF BIOTECH COMPANIES IN JAPAN & AUSTRALIA



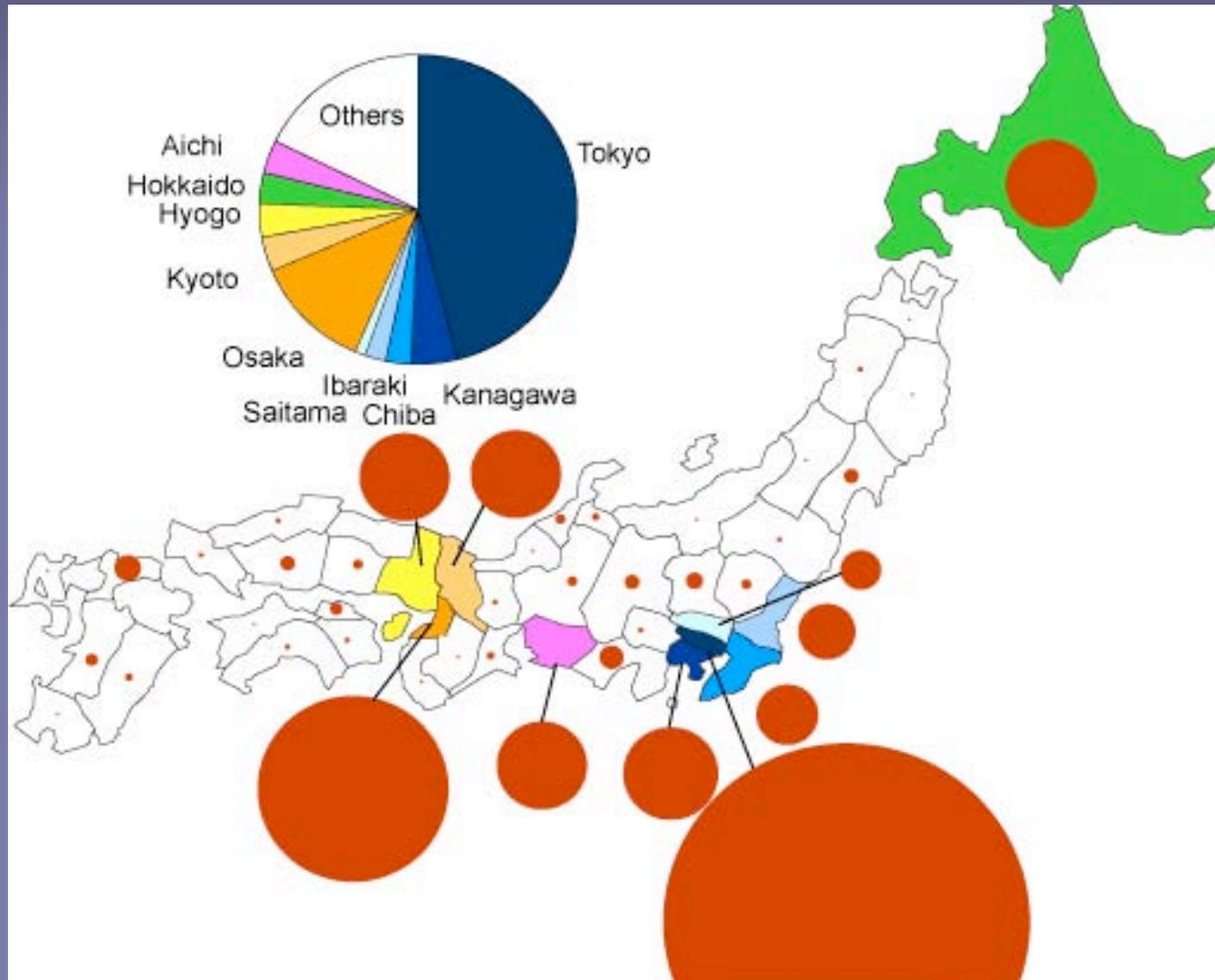
COMPARISON OF STRUCTURES OF BIOTECH INDUSTRY



COMPARISON OF SECTORS OF START-UPS IN JAPAN & AUSTRALIA



LOCATION OF BIOTECH COMPANIES IN JAPAN



DENSITY OF BIOTECH COMPANIES

SOURCE: * US REPORT, ** OUR RESEARCH

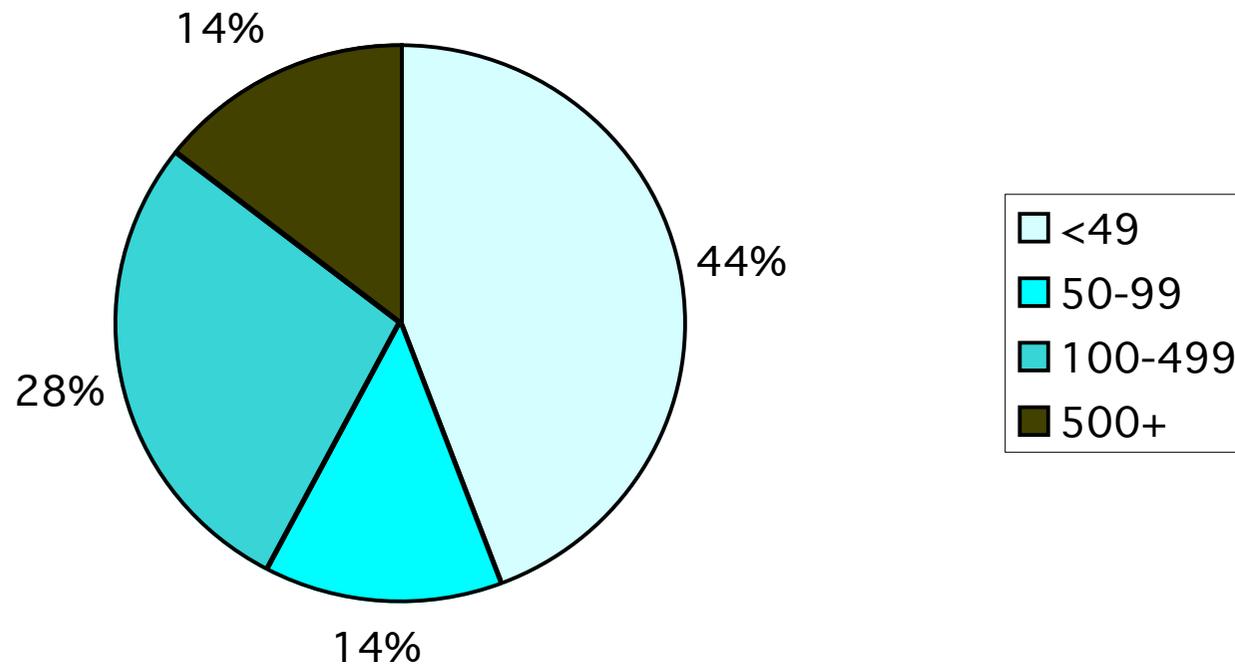
AREA	NO. OF COMPANIES	POPULATION [MILLION]	NO.OF COS. PER MILLION
TOKYO**	722	11.9	60.7
JAPAN**	1593	125.6	12.6
NSW**	119	6.7	17.8
AUSTRALIA	437	20.0	21.9
USA*	3200	279.0	11.5

OLD vs. NEW

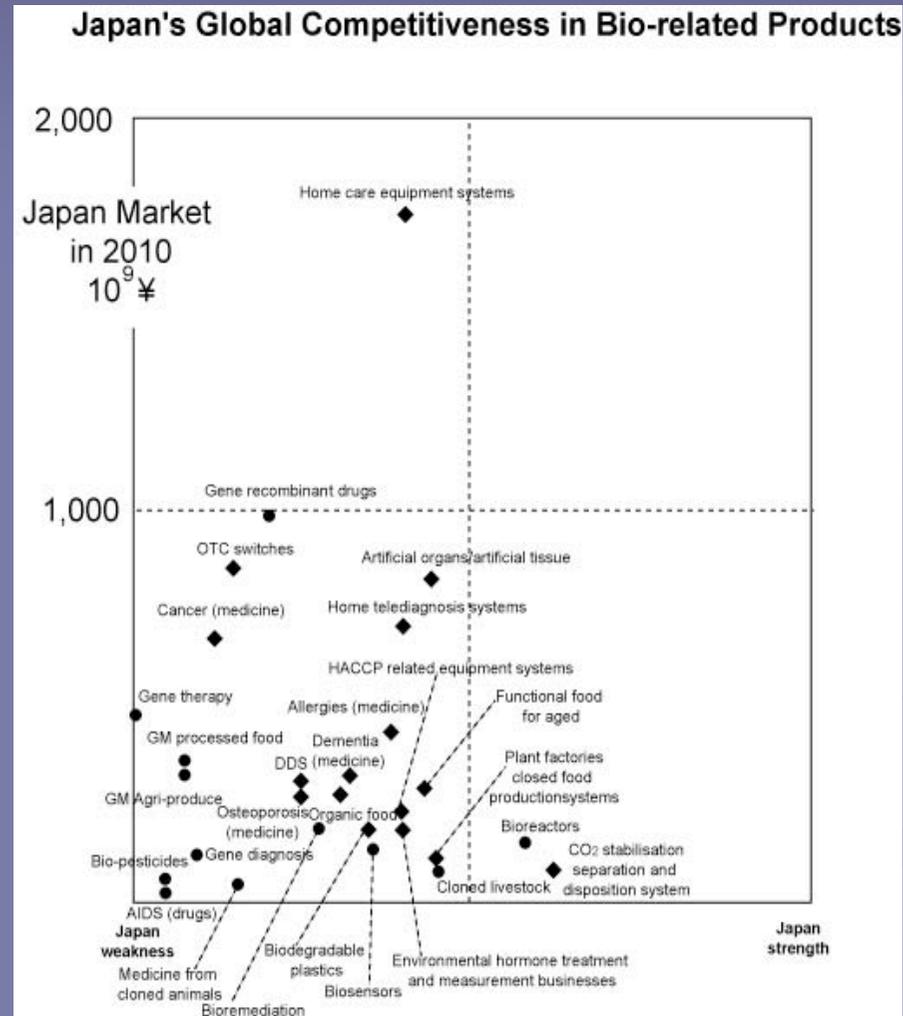
ASPECTS	OLD ESTABLISHED	NEW VENTURE
R&D FUNDING	Supported by revenue from core business	Need external funding, i.e. Gov. projects, alliance Limited availability of VC High hurdle for listing
STAFF RECRUIT	Easy - enclosure of fresh graduate	Difficult - graduates prefer well known established
DISCISION MAKING	Slow Influenced by politics	Fast
ORGANIZATION	Stable & Rigid	Uncertain & Flexible
INFRASTRUCTURE	Capitalize existing facilities & staff	Out sourcing or start from scratch

PAID CAPITAL OF START-UPS IN JAPAN

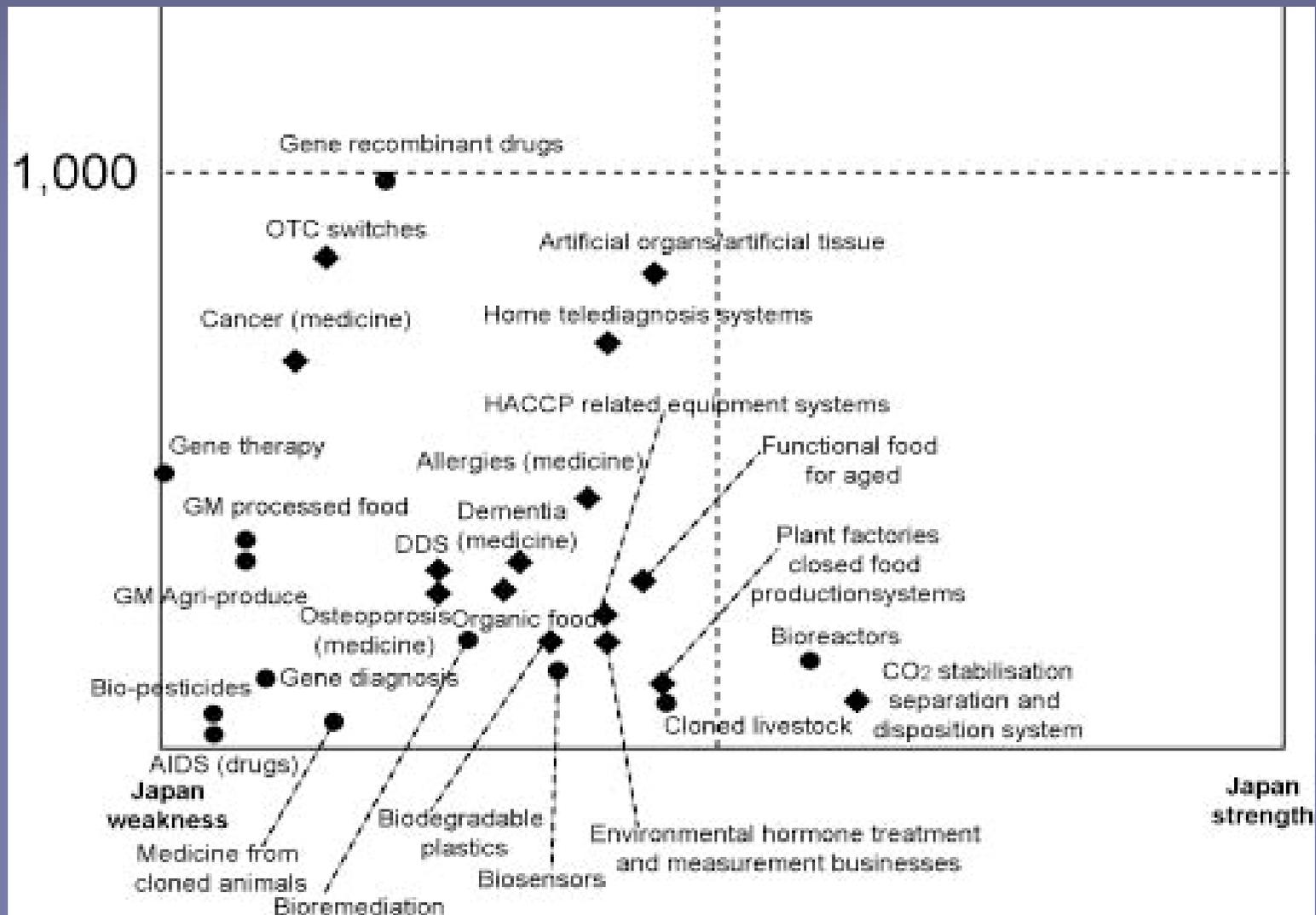
[UNIT: 10 MILLION YEN ≒ \$13 K]



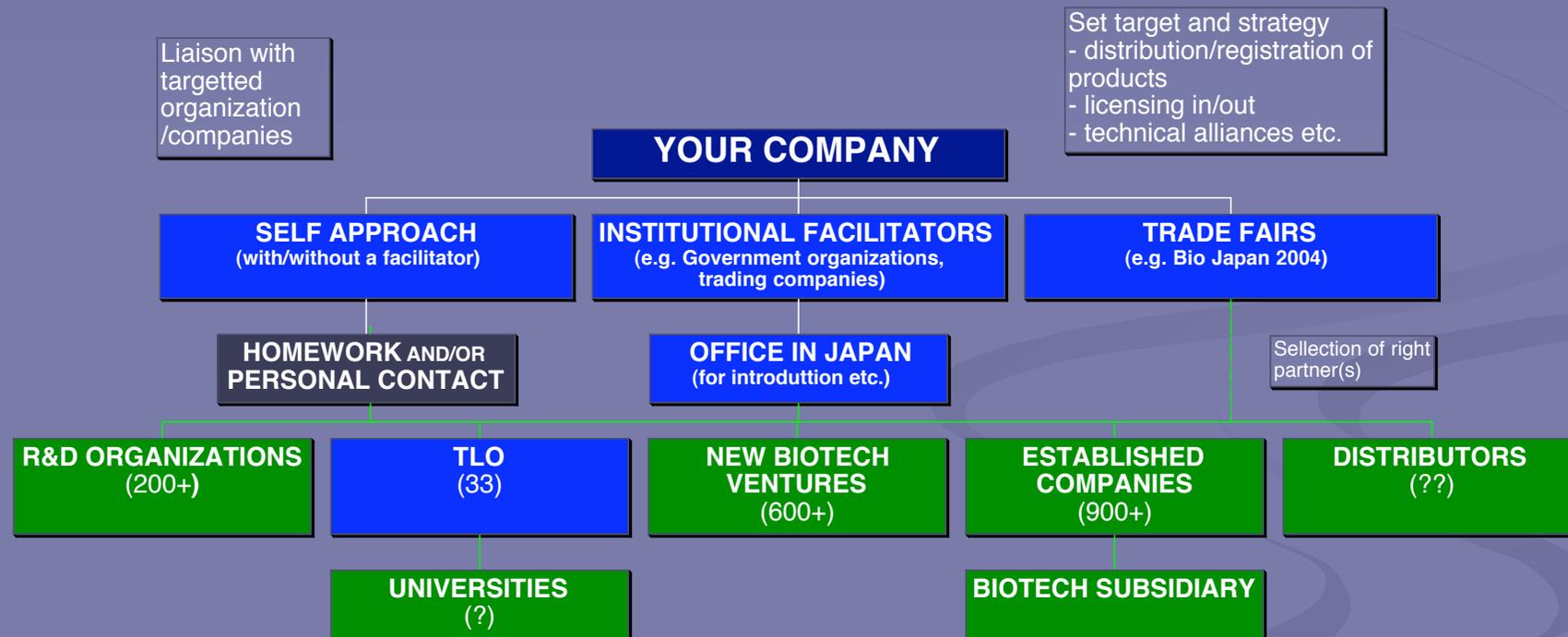
JAPAN'S GLOBAL COMPETITIVENESS IN BIO-RELATED PRODUCTS



JAPAN'S GLOBAL COMPETITIVENESS IN BIO-RELATED PRODUCTS (PART)



HOW TO ESTABLISH CONTACTS



EXAMPLE OF THE USE OF DATABASE

NANO-BIOTECH COMPANIES: 18 HITS

COMPANY	CATEGORY	ACTIVITY
Advance Soft	Information	Bio/nano/fluid information analysis service
Aphoenix	Contract research	Reverse targeting with SG nano beads
Archilys Engineering	Fine chemicals	Bio analysis with heavy metal nano particles
Beacle	Therapeutic	DDS/Gene therapy with nano hollow protein particle
Bio Nanotech Res. Ins.	Fine Chemicals	Nano porous material
BMT Hybrid	Therapeutic	Vaccine with nano technology
Cruster technology	Equipment	Nano technology for DNA chips
Device Nanotech R. I.	Equipment	Device & process with MEMS
GL Science	Equipment	Metal nano sprayer used in proteomics
Inter Cyte Nanoscience	Therapeutic	Nanotech 3 dimensional analysis
Moritex	Equipment	Bio therapy with nanotech
Nano Carrier	Therapeutic	Drug/gene embedded in nano particles
Nano Device Systems I	Equipment	Nano device MEMS
Oxygenics	Therapeutic	Nano drug, artificial red cells
Shiratori Nanotechnol.	Equipment	Nano order thin layer manufacturing system
Tama TLO	TLO	Nano machine with functional molecules
Toray	Therapeutic	Established Bio-Nanotech Frontier Institute in 2003

組織名	アンジェスエムジー	アンジェスエムジー
組織名 英文	AnGes MG	
組織形態	株式会社	事業分野 医薬品
バイオ事業	遺伝子治療薬ならびに核酸医薬の開発	
所在地	大阪府豊中市新千里東町1-4-2	
	郵便番号1	560-0082
設立年	1999	
資本金	18億254万円	従業員数 76 人
売り上げ	18億円 (02)	
経常利益	-7億円 (02)	
研究開発費		
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Eメール		
ホームページ	www.anges-mg.com/	
窓口担当者	山田英 代表取締役社長	
組織概要	<p>旧称メドジーン・バイオサイエンス 2001年米国・2002年英国に子会社 2002年治療用・診断用遺伝子の発見・創薬を目的とする子会社ジェノミア設立 2002年9月東証マザーズに国内大学ベンチャーとして第1号の株式上場 大阪大森下助教(兼取締役)の研究成果を基に設立</p>	
バイオ事業概要	<p>末梢性血管疾患を対象とした肝細胞成長因子 (HGF)遺伝子治療薬の開発・製造販売。 血管新生作用を有するHGF産生遺伝子を虚血部位に投与して虚血状態を改善する遺伝子 医薬品を第一製薬と共同開発 03年7月、HGF遺伝子を用いた治療法の基本特許が日本で成立 03年12月、HGF遺伝子治療薬の検大規模臨床試験の開始を発表 核酸医薬(デコイオリゴ)の研究・開発・製造-アトピー性皮膚炎(臨床試験終了) 03年2月、北海道システム・サイエンスとGMP適合水準での核酸製造で基本合意 Business PlatformとしてのDDS用新規ベクター(HVJエンベロープベクター)の研究・ 開発は子会社のジェノメディアに譲渡(03年6月) バイオ特許:7件 (遺伝子治療、遺伝子医薬関連)</p>	
バイオ製品		
他国との提携	米英に子会社設立	
活動分野コード	医薬品・試薬	