extent permitted by law or Government regulations available to the public on reasonable terms.

"(g) The term 'made' when used in relation to any invention means the conception or first actual reduction to practice of such invention.

"(h) The term 'small business firm' means a small business concern as defined at section 2 of Public Law 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration.

"(i) The term 'nonprofit organization' means universities and other institutions of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

"§ 202. Disposition of rights

"(a) Each nonprofit organization or small business firm may, within a reasonable time after disclosure as required by paragraph (c)(1) of this section, elect to retain title to any subject invention: *Provided, however,* That a funding agreement may provide otherwise (i) when the funding agreement is for the operation of a Government-owned research or production facility, (ii) in exceptional circumstances when it is determined by the agency that restriction or elimination of the right to retain title to any subject invention will better promote the policy and objectives of this chapter or (iii) when it is determined by a Government authority which is authorized by statute or Executive order to conduct foreign intelligence or counter-intelligence activities that the restriction or elimination of the right to retain title to any subject invention is necessary to protect the security of such activities. The rights of the nonprofit organization or small business firm shall be subject to the provisions of paragraph (c) of this section and the other provisions of this chapter.

"(b)(1) Any determination under (ii) of paragraph (a) of this section shall be in writing and accompanied by a written statement of facts justifying the determination. A copy of each such determination and justification shall be sent to the Comptroller General of the United States within thirty days after the award of the applicable funding agreement. In the case of determinations applicable to funding agreements with small business firms copies shall also be sent to the Chief Counsel for Advocacy of the Small Business Administration.

"(2) If the Comptroller General believes that any pattern of determinations by a Federal agency is contrary to the policy and objectives of this chapter or that an agency's policies or practices are otherwise not in conformance with this chapter, the Comptroller General shall so advise the head of the agency. The head of the agency shall advise the Comptroller General in writing within one hundred and twenty days of what action, if any, the agency has taken or plans to take with respect to the matters raised by the Comptroller General.

"(3) At least once each year, the Comptroller General shall transmit a report to the Committees on the Judiciary of the Senate and House of Representatives on the manner in which this chapter is being implemented by the agencies and on such other aspects of Government patent policies and practices with respect to federally funded inventions as the Comptroller General believes appropriate.

profit organization shall contain appropriate provisions to effectuate the following: agreement requirements.

"(1) A requirement that the contractor disclose each subject invention to the Federal agency within a reasonable time after it is made and that the Federal Government may receive title to any subject invention not reported to it within such time.

"(2) A requirement that the contractor make an election to retain title to any subject invention within a reasonable time after disclosure and that the Federal Government may receive title to any subject invention in which the contractor does not elect to retain rights or fails to elect rights within such time.

"(3) A requirement that a contractor electing rights file patent applications within reasonable times and that the Federal Government may receive title to any subject inventions in the United States or other countries in which the contractor has not filed patent applications on the subject invention within such times.

"(4) With respect to any invention in which the contractor elects rights, the Federal agency shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world, and may, if provided in the funding agreement, have additional rights to sublicense any foreign government or international organization pursuant to any existing or future treaty or agreement.

"(5) The right of the Federal agency to require periodic reporting on the utilization or efforts at obtaining utilization that are being made by the contractor or his licensees or assignees: *Provided,* That any such information may be treated by the Federal agency as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under section 552 of title 5 of the United States Code.

"(6) An obligation on the part of the contractor, in the event a United States patent application is filed by or on its behalf or by any assignee of the contractor, to include within the specification of such application and any patent issuing thereon, a statement specifying that the invention was made with Government support and that the Government has certain rights in the invention.

"(7) In the case of a nonprofit organization, (A) a prohibition upon the assignment of rights to a subject invention in the United States without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention (provided that such assignee shall be subject to the same provisions as the contractor); (B) a prohibition against the granting of exclusive licenses under United States Patents or Patent Applications in a subject invention by the contractor to persons other than small business firms for a period in excess of the earlier of five years from first commercial sale or use of the invention or eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to

said, 'When are you stupid people going to get your heads screwed on right?'" Merrifield recalls. "For the first time, Baxter admitted there might be something to what I had been saying."

Merrifield's next stop was Capitol Hill, where House Judiciary Committee Chairman Peter W. Rodino Jr. (D-N.J.) said he was not interested in altering antitrust law. So, says Merrifield, "I cited six horrendous cases of Justice Dept. intervention in attempts to do cooperative research." And when Senator Howard M. Metzenbaum (D-Ohio) threatened a filibuster, Merrifield got 77 senators to co-sponsor the bill and made impassioned speeches in Cleveland and Akron. That, says Merrifield, caused the senator to change his mind.

'ZEROED OUT' Whether Merrifield has embellished his account or not (Metzenbaum's office disputes his version), the National Cooperative Research Act of 1984 passed. Since it became law about a year ago, some 40 research consortiums, including Inman's MCC, have registered with Justice and the Securities & Exchange Commission. Some are using another Merrifield idea—financing their efforts with R&D limited partnerships. Wall Street likes the idea. PaineWebber Inc., for one, is raising $100 million to finance such partnerships.

The OPTI chief has also lobbied hard for laws that will allow the private sector to own patents on inventions developed with government money and he has sought retraining for workers laid off by dying industries. Merrifield wants the National Technical Information Service, which he oversees, to create a "one-stop, world-scan data base" to let U.S. companies tap foreign technology. "A decade ago we created 75% of the world's technology," he says. "That's now down to 50%, and soon it will be one-third."

When Merrifield is not riding circuit with his sermon, he continues to ruffle feathers in Washington. He recently warned the Agriculture Dept. that while it is worrying about plummeting farm exports, it is ignoring the need for new agricultural technology. Such incursions into others' bureaucratic turf may have cost him critical points. Merrifield's office "really did play hardball up here," grouses one congressional aide. "They burned some people and may well get burned in return." His meaning was clear: If the budget office "zeroes out" OPTI as it did last year, Congress this time may not restore the funding.

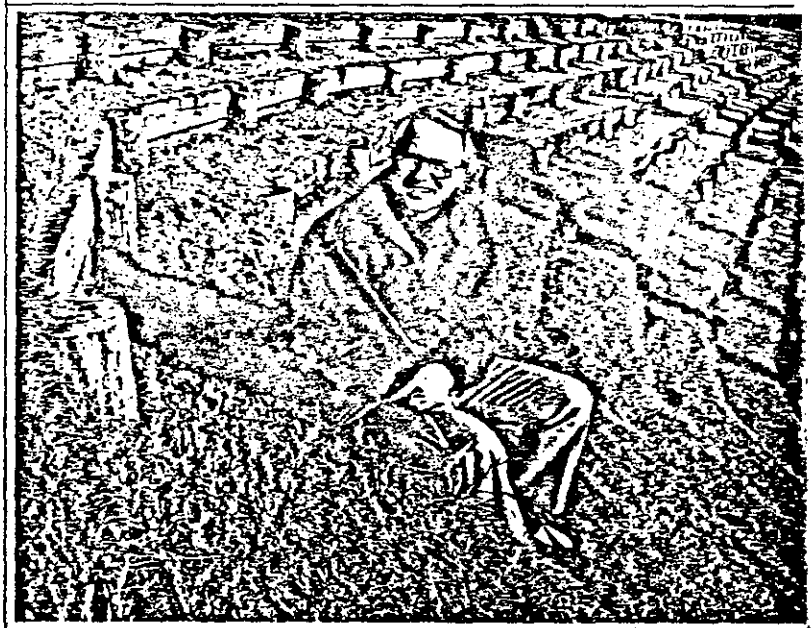
Merrifield seems unperturbed. Echoing the OMB's rationale for shutting down his office, he says: "No problem. There are times when I think maybe I've done what I can here." But, adds a colleague: "It's amazing that he has run loose this long."

By Evert Clark in Washington

JOHN HANSEN

HOW THE PGA IS STAYING OUT OF THE ROUGH

FEARING A DEPENDENCE ON TV, COMMISSIONER BE EXPANDED INTO MARKETING AND EVEN INTO REAL E



BEMAN ON AN EARTHEN GRANDSTAND: NEW "STADIUM COURSES" DRAW CROWDS

Golf has one feature that's unique among major professional sports: Its spectators have a hard time seeing what's going on. The trouble is that golf courses—until recently—were designed to accommodate the players, not the watchers. But when Deane R. Beman, a top-ranked touring professional, was named golf commissioner 12 years ago, he made it one of his goals to change that.

Has he ever. He invented the stadium golf course. The earth that's bulldozed out for water hazards and other features is used to build spectator mounds along the course and earthen grandstands at the first tee and 18th green. Beman hopes this perfectly simple idea will go a long way toward ensuring that professional golf has a golden future.

RENT A TENT. Today there are 12 such courses, all operated by the entity Beman heads, PGA Tour Inc., and 12 more are planned. The record shows that the new courses attract bigger crowds: Some 50,000 people a day are expected at the last two days of the Tournament Players Championship at the PGA's prototype stadium course in Ponte Vedra, Fla., the last weekend in March. Bigger crowds mean greater ticke and concession revenues. tournaments also attract cor rent tents in which they sell from golf gear to life insu larger the crowds, the greate tive to rent a tent.

It all means more money, the name of the game f though the tour is a nonprof tion. When he took over the had assets of $730,000 and income of $3.9 million, virtua the sale of television rights. commissioner, then 35, that ening. It meant that the gam was in the hands of the netv

He was determined to b revenue base—and he's gone toward that goal. The tour is in marketing and merchandis tate development, golf-cou tions, and TV production. It h ated a new product, the Senic pro golfers over 50. Last ye Tour, with assets of $41.6 r total revenues of $48.3 millio $16.4 million came from telev

PGA Tour, as distinct from sional Golfers' Association o

AMERICA CAN BEAT ANYONE IN HIGH TECH. JUST ASK BRUCE MERRIFIELD

BUT THE COMMERCE DEPT. CRUSADER FOR A NEW ERA OF R&D MAY SOON BE OUT OF A JOB



MERRIFIELD'S BRASH EFFORTS TO AID THE HIGH-TECH INDUSTRY ALIENATED THE REAGANITES

"If you believe in astrology, Geminis are manipulative, pretty damn clever, and very success-oriented," observes a Commerce Dept. official. D. Bruce Merrifield is a Gemini, and those characteristics contributed mightily to his success as the Reagan Administration's most effective advocate of U.S. technological competitiveness. As Assistant Commerce Secretary for productivity, technology, and innovation during the past four years, Merrifield led the fight to modify antitrust law to permit cooperative research among competing companies, stimulate the growth of research and development limited partnerships, and launch discussions with 38 countries on cooperative agreements for developing technology.

So why has the Administration marked his office for extinction next year? The official answer is that it has accomplished what it was set up to do. Insiders see it differently. They say Merrifield has been so manipulative, clever, and successful that he made enemies in his own department, at the White House science policy office, and—most important—in the Office of Management & Budget. Merrifield, says one industry research director, "never learned to live in the Washington climate; he didn't smooth the feathers he needed to."

Yet Merrifield's zeal has made him a hit on Wall Street and a hero to CEOs of both major corporations and tiny, high-tech startups. "He has a real vision, you know," says one colleague. "He's really sort of the prophet of high technology." Indeed, 64-year-old Merrifield preaches his sermon to all who will listen and to some who would rather not. "There is no excuse for us to lose the leading edge in technology," he says. "The U.S. can outrun anybody, any place, any time if we just get our act together." All that's needed, he believes, is to tap the innovative technology created by startups and remove roadblocks to intercompany cooperation on important R&D projects.

The chance to help the U.S. do just that induced Merrifield in 1982 to leave Continental Group, where he was vice-president for technology and venture management, and resign as president-elect of the Industrial Research Institute, a group of corporate-research managers. He took charge of a tiny corner of the Commerce Dept. known as the Office of Productivity, Technology & Innovation (OPTI), with only two dozen employees and a budget of about $2 million.

Although Merrifield holds master's and doctoral degrees in physical organic chemistry from the University of Chicago, his message is laced with economics. He insists that while many of the top industrial corporations are "going down the tubes," thousands of high-tech start-ups are ready to take up the slack. "The climate for entrepreneurship and productivity is bringing about a total restructuring of the economy," he says.

The problem, according to Merrifield, is that this growth is "pretty much invisible." Even though the U.S. is creating almost 700,000 new companies a year, 80% of them go unnoticed because the Census Bureau does not count companies with fewer than 20 employees. Merrifield also argues that the OMB's Standard Industrial Classification codes are hopelessly outmoded. "Silicon chips and computer software are listed in a category of stone, glass, and clay, and there is no code for biotechnology," he says. "The bureaucrats are turning a crank that's 30 years old."

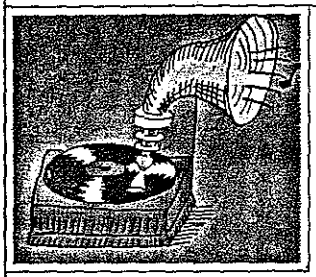
A TRICK OR TWO. Cracks like that have earned Merrifield few friends in the warrens of Washington. Moreover, his proposed solutions sound suspiciously like "industrial policy" to Reaganites opposed to government intervention in the marketplace. Even so, he has won some important battles. The most significant: He engineered changes in U.S. antitrust laws to allow rival companies faced with foreign competition to undertake joint R&D projects. "Everyone thought I was crazy," Merrifield says.

That victory required more than a year of battling to convince William F. Baxter, then head of the Justice Dept.'s antitrust division, that change was needed. Merrifield was not above a trick or two to get the job done. He once planted retired Admiral Bobby R. Inman, who heads a research consortium of major electronics and computer companies called Microelectronics & Computer Technology Corp. (MCC), in the audience during a Baxter speech. When Baxter commented that it was only a perception that antitrust law was a barrier to such research co-ops, Inman "jumped up and

Developments to Watch

EDITED BY OTIS PORT

PLAYING ORDINARY RECORDS WITH A LASER



Tripping the light fantastic will get a whole new connotation late this year, when a Sunnyvale (Calif.) startup introduces a turntable that uses laser beams to play records. Compact disk (CD) players already do that, of course, but they require special digital CD recordings. The upcoming laser turntable from Finial Technology Inc. plays ordinary LP records and produces the purest sound ever heard from a standard vinyl LP, according to the company. That's because the pickup arm dances above the surface of the LP without the physical contact that inevitably distorts the sound and eventually wears out the record.

Instead of the usual needle, Finial's pickup has two tiny solid-state lasers that shine their beams into the record's grooves. The beams bounce off the undulating sides of the groove, and the turntable's microprocessor "brain" converts the reflections into stereo sound. Because the sound doesn't depend on a needle vibrating in the groove, even severely warped and scratched records will play almost like new, claims Finial. Expect to pay about $2,500 for the laser turntable when it is introduced just before Christmas.

THE PAYOFF IN FUNDING UNIVERSITY RESEARCH

This year U. S. companies will shower more than $600 million on universities to finance research that they believe will lead to valuable scientific insights and, ultimately, new products or technologies (BW—June 23). In biotechnology, at least, a study by the center for health policy and management at Harvard University's John F. Kennedy School of Government indicates that industry gets its money's worth.

The center polled 100 companies, and they reported that university research results in two to four times as many patent applications as research from any other source—including their own corporate laboratories. So satisfied are the corporate sponsors that two-thirds say they plan to increase their budgets for research at universities.

"Most companies realized benefits that are important for the birth of the biotech industry," says David Blumenthal, executive director of the center. In a companion survey of 1,240 professors and university researchers, Blumenthal found that they share industry's enthusiasm. The academics said they published more papers, won more patents, and made more money when industry paid for their research.

A CHIPMAKER IS ABOUT TO BE BORN—IN TAIWAN

After years of pleading with the big international chipmakers to set up a plant in their country, Taiwanese officials are on the verge of a major victory. Netherlands-based Philips has agreed to invest $40 million in a $207 million chipmaking facility in Hsinchu. The government has promised to foot $70 million of the cost if investors cough up $35 million. Local banks will underwrite the remaining $62 million.

For Taipei officials, Philips' decision has been a long time coming. For 20 years, Taiwan has provided cheap labor to assemble chips into protective housings for such semiconductor giants as Texas Instruments, RCA, and General Instrument. But when Taiwanese engineers design a chip to provide some unique features for their calculators or computers, it must be shipped to Silicon Valley, where it's etched onto silicon. About 20% of the value of Taiwanese personal computers is imported, largely in the form of chips. The government is also counting on the plant to blunt growing competition from South Korea, which has invested more than $1 billion in chip factories over the past three years.

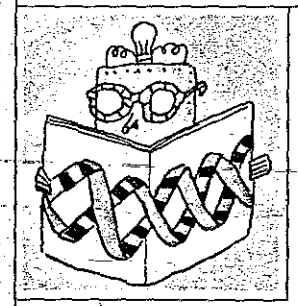
DISHING UP A 'NEW' PRESERVATIVE: ROSEMARY



Eating preservative-free foods may be healthful, but it can also be expensive. Natural foods usually cost more and sometimes spoil before they can be completely eaten. But chemists at Rutgers University are dishing up an appetizing alternative: natural preservatives found in the spice rosemary. Like BHT and BHA, their synthetic cousins, the preservatives belong to a family of chemicals called antioxidants, which food processors use to preserve breakfast cereals and luncheon meats.

Cooks and chemists alike have known about the rosemary plant and its food-preserving properties for centuries. But previous efforts to extract its antioxidants always yielded a substance with a strong rosemary odor and a bitter taste. The Rutgers researchers found a way to distill off the smell and taste. They say that tests have shown the extract is just as effective as the synthetics for preserving pizza, breakfast cereals, and prepared meats. Kalsec Inc., a spice processor in Kalamazoo, Mich., is the first to market the product.

A MACHINE THAT SPEED-READS THE DNA CODE



So far, geneticists have been able to decipher less than 1% of the mammoth library of genetic information that lies inside each human cell. But they keep plugging away, because unraveling the material may hold the key to cures for cancer and 3,000 genetic diseases.

The pace of that research may quicken immensely, thanks to Leroy E. Hood, chairman of the Biology Dept. at the California Institute of Technology. Hood, who previously invented the so-called gene machines to automate the synthetic assembly of genes, has built a device that "reads" DNA, the master molecule of heredity, up to 10 times faster than can be done manually.

Dubbed a DNA sequencer, the device "automates one of the most important techniques in biotechnology," says Hood. The sequencer is a step toward Hood's dream of a "gene fingerprinter," which would automatically detect genetic disorders in a fetus by comparing its genes to a computerized library of normal human genes. Although the gene fingerprinter is still years off, the sequencer will be available early next year, for about $90,000, from Applied Biosystems Inc., a manufacturer of gene synthesizers based in Foster City, Calif.

ILLUSTRATIONS BY MARC ROSENTHAL

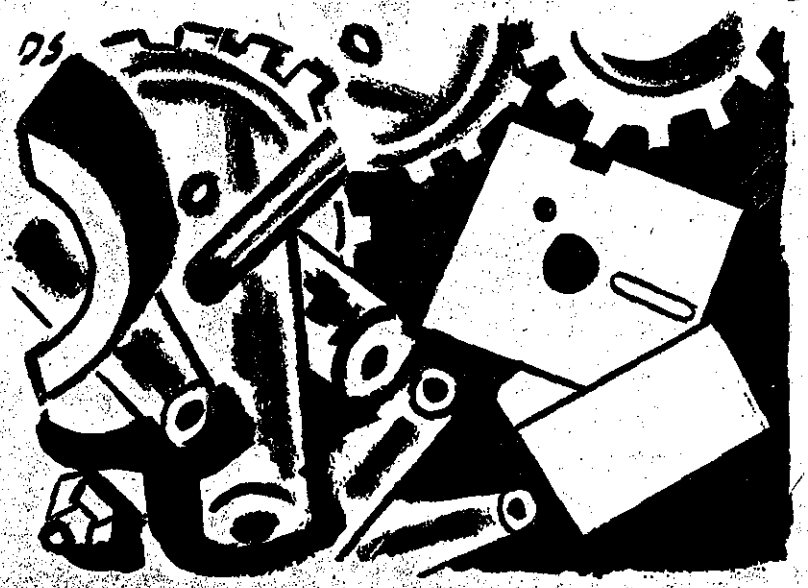
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Forum

MANUFACTURING'S COMEBACK

The Low Dollar Has Worked Wonder

By JERRY J. JASINOWSKI



NEARLY two centuries ago Alexander Hamilton, in his famous "Report on Manufactures," tied the future of the United States to the health of its manufacturing sector. Hamilton's prescient words still ring true today.

Yet in late 1984, when we approached the largest trade deficit in our nation's history, the President's Trade Report read: "The move from an industrial society toward a post-industrial service economy has been the greatest change to affect the developed world since the Industrial Revolution. The progression of an economy such as America's — from agriculture to manufacturing to services — is a natural change."

Acceptance of this "post-industrial premise" served to explain away economic policy mistakes that created huge Federal budget deficits, raised interest rates, overvalued the dollar, raised the cost of capital and, in the end, lessened the competitiveness of American industry.

But as we look back at the last few years, it's obvious that the President's trade officials were wrong about both the strength of the service economy and the decline of the manufacturing sector.

The service sector has grown primarily because manufacturing provides support in terms of technology and raises the standard of living through its higher wages. Contrary to popular opinion, the vast increase in service employment has not been because of that sector's inherent superiority; rather, it is because its built-in inefficiencies have generated a higher manpower requirement. And far from supplementing manufacturing — as the post-industrialists envisioned — the service sector is increasingly dependent upon it. For example, the largest supplier to the General Motors Corporation does not make auto parts — it sells health insurance.

The second part of the post-industrial premise also proved false. Rather than decline, manufacturing has shown signs of a comeback. Since 1982, manufacturing productivity has grown by more than 4 percent a year. Real net exports improved by $30 billion over last year and will be the main engine for growth this year. To a large extent, the strength of the industrial economy has helped offset the negative impact of the recent stock market crash.

This resurgence in the industrial sector is a result of the sharp decline in the dollar exchange rate and drastic cost-cutting by corporations. The dollar has fallen by about 45 percent since its peak in early 1985, making American products more price competitive. Most manufacturing firms have also been able to reduce their costs by 15 to 20 percent over the same period. The result is a substantially more competitive manufacturing economy.

Recent exchange rate and cost improvements have significantly enhanced our competitive position in international trade, particularly by mitigating our traditional high wage disadvantage. As remarkable as it may seem, the United States is in the process of achieving an equal or superior position vis-a-vis the other advanced industrialzed countries in terms of wage costs. According to 1987 estimates by the International Monetary Fund, estimates, exchange rate adjusted unit labor costs in American manufacturing are now below those in Japan, West Germany, Canada and Italy and are roughly on a par with France and Britain. Given the current downard pressure on the dollar and evidence of rapid manufacturing productivity growth domestically, the United States should achieve a comparative advantage in labor costs against the major industrialized countries — including Japan — within the next few years. In addition, roughly three-quarters of our nation's economic growth this year will come from the growing manufacturing sector and much of that from an increase in exports.

American unit labor costs are now below those of Japan.

Productivity improvements have been much greater in manufacturing than they have been in services, which in turn has held down costs and inflation and improved real incomes. The rate of inflation for manufactured products, for example, is one third the rate in the service sector, and in recent years, manufacturing

Jerry J. Jasinowski is executive vice president and chief economist at the National Association of Manufacturers.

productivity has grown at a 4 percent annual rate.

THE evidence of the importance of a vital manufacturing sector is striking. But while a comeback in manufacturing is under way, it would be a serious mistake to assume that continued success is certain. American manufacturers are still behind the Japanese when it comes to the speed with which they commerialize new products. And American companies still lag behind German and Swedish manufacturers in overall costs. American manufacturers continue to trail behind the very aggressive Japanese in their global marketing practices.

In addition, a recession in 1988 could set American manufacturing back along with the rest of the economy. More importantly for the future, American companies still have a long way to go to be fully competitive against the newly industrialized countries of the Pacific Basin. Taking the next step back to world leadership in manufacturing will require even deeper commitments by both government and industry.

Manufacturers themselves must move on to phase 2 of improving their overall competitiveness. This means greater speed and flexibility in responding to rapidly changing global markets while at the same time keeping a steady eye on long-term goals. Operationally, it means excellence in all the manufacturing basics; clarifying the manufacturing strategy; making a total commitment to quality improving inventory management and materials handling; upgrading the manufacturing process; shortening the product development cycle; marketing more aggressively abroad; and fostering a competitive team effort among employees. Finally, it means creating an organization that emphasizes continuous learning about how to compete better here and abroad.

We are in the early stages of a potential renaissance in American manufacturing and the fundamental strengths of that sector are again becoming evident. The window of opportunity is open. But the full extent of our success will depend on how wisely we acknowledge — and use — the strengths of the manufacturing sector as our nation's dynamic engine of growth. ■

DRAFT Agreement B.

Collaborative Research Agreement

This Agreement, effective _____, 1986, is by and between _____ and the _____ (hereinafter referred to as _____, National Institutes of Health (NIH), a component agency of the Department of Health and Human Services (DHHS).

1. During the term of this Agreement, _____ will provide through the _____ salary and salary dependent charges for a postdoctoral research worker (the _____ postdoctoral research fellow), who will work on the project for _____ as a Guest Worker at NIH, miscellaneous supplies and expense items in the amount of $_____ for the first year and for the second year commencing October 1, 1987, $_____.

2. The Principal Investigator for the study is Dr. _____. The Principal Investigator is responsible for performing the work described in the research protocol attached at Tab A. In the event the Principal Investigator becomes unable to complete the protocol for any reason, _____ and _____ may mutually agree to a substitute Principal Investigator, in which event this Agreement shall continue in full force and effect. If _____ and _____ cannot agree on a substitute, this Agreement shall immediately terminate.

3. The _____ postdoctoral research fellow and not more than one other _____ employee at any one time, may work as Guest Workers with the Principal Investigator and may have a reasonable use of research facilities, including laboratory space and equipment, at no charge, as may from time to time be agreed by the Principal Investigator and the appropriate _____ manager.

4. The collaborative research shall be conducted in accordance with the attached research protocol entitled "_____ _____."

5. The Principal Investigator and the postdoctoral research fellow will visit _____ corporate bioscience group once each year. _____ will pay for the accommodations, subsistence, and travel for the postdoctoral research fellow and the Principal Investigator, to the extent permitted by Federal Regulations at 45 CFR 73.735-507(b).

6. Regular monitoring of the research project will be conducted by biannual progress reports prepared jointly by the Principal Investigator and the postdoctoral research fellow, and by biannual meetings between staff from _____ and those directly involved in the research project.

7. Confidentiality of Information

shall treat all data and information relating to the collaborative research program either: (a) submitted in writing by _____

to and suitably indicated or marked as confidential, as trade secrets or commercial or financial information within the exception to the disclosure mandate of the Freedom of Information Act (5 U.S.C. 552(b)(4)), unless otherwise determined by NIH or DHHS FOIA officials or a court of competent jurisdiction. further agrees that such data and information may be disseminated within , but only to the extent necessary to permit performance of obligations under this Agreement. The obligations and restrictions provided in this paragraph shall not apply to whatever portion of such data and information (a) may be in the public domain at the time of disclosure to by _____ or at the time it is derived by and/or _____ in the course of the research program, or after such disclosure or derivation, is made part of the public domain by _____ or a third party not affiliated with or employed by NIAID who is legally in possession of this data or information and is under no obligation to _____ or to to maintain such information confidential; (b) is lawfully made available to by a third party who is not affiliated with or employed by _____ and is under no obligation to _____ to maintain the same confidentiality; or (c) was already known to NIAID at the time of the disclosure to by _____.

8. _____ agrees to cooperate with NIAID in facilitating and creating useful publications in the area of research related to the development of pertussis vaccines, so long as such publications do not result in the disclosure of trade secrets or commercial or financial information treated as priviledged or confidential by under paragraph 7. In order to protect _____ confidential information, agrees to give _____ at least 30 days to review any proposed article resulting from the collaborative research and will not submit any such article for publication prior to obtaining _____ approval. That approval may be withheld only if _____ reasonably determines that the article contains confidential information as defined in paragraph 7. of this Agreement.

9. In accordance with Executive Order 10096, the Department of Health and Human Services (DHHS), the parent agency of . shall have title to any invention developed under this Agreement by employees or by Guest Researchers or Guest Workers. In the event a patent application is filed on such inventions by the DHHS, the DHHS and the . agree to grant to _____ an irrevocable, nonexclusive, royalty-bearing license to make, use, and sell the invention for a period of five (5) years from the date of first commercial sale, or eight (8) years from the date of this license, whichever occurs first, in accordance with the terms and conditions contained in the DHHS Standard Exclusive License

Agreement, (a copy of which is attached hereto and made a part of this agreement attached at Tab B) provided that _____ complies with the requirements of 37 CFR Part 404 (especially §§ 404.5 and 404.8).

10. In the event the and the DHHS determine that no inventions have arisen from the research or that no patent applications will be filed, _____ shall be free to use all information and materials including biological materials, generated or developed during the course of the research, so long as this does not interfere with the use of such information and materials.

11. In the event of any dispute between and _____ arising out this Agreement, which dispute cannot be settled by consultation and discussion between the parties, said dispute shall be referred to the DHHS Assistant Secretary for Health for resolution.

12. The term of this Agreement shall be two (2) years from the date of execution of the Agreement unless extended by written agreement of the parties. This Agreement may be terminated by either party upon 30 days prior written notice and thereafter the parties have no further obligation to supply materials or conduct research. All other rights and obligations set forth herein which vest prior to the termination, shall survive any termination of the Agreement.

13. No indemnification for damages is intended or provided under this Agreement. Each party shall be liable for any damages it incurs as a result of its activities under this Agreement.

14. This Agreement, including any questions concerning its validity or effect, or performance hereunder, or its operation, interpretation of construction, shall be governed and determined in accordance with Federal law.

Date: _____ _____ _____

TECHNOLOGY TRANSFER

The process of enabling a business to benefit from technology developed outside that business.

Sources of Technology

- Company laboratories
- Research associations
- Universities & polytechnics
- Government research laboratories (including defense)
- Foreign sources
- Private inventors & entrepreneurs

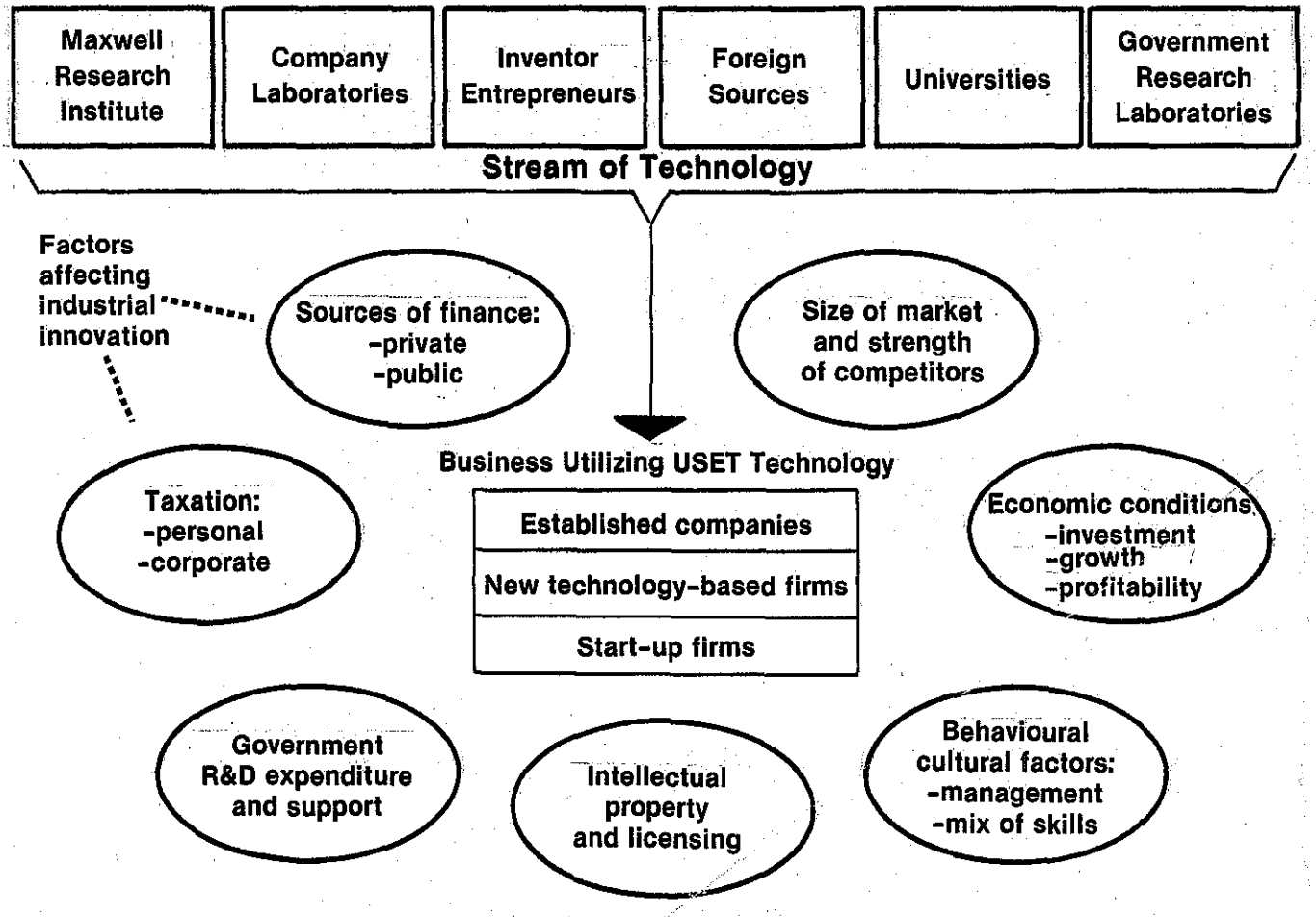
What can be Transfered from Technology stream

- Knowledge
- Patents
- Software (copyright)
- Knowhow
- Replicable businesses
- Trade names & trade marks
- Other tangible research products - i.e. monoclonals, reagents
- Joint venture with USET clients

Methods of transfer To be undertaken By USET

- Licensing
- Start up a new business
- Acquisitions
- Franchising
- Contract R & D
- Consultancy
- Transfer of people
- Data bank of client technology including possible joint ventures

THE TECHNOLOGY TRANSFER PROCESS FROM USET CLIENTS



Public Law 96-517
96th Congress

An Act

To amend the patent and trademark laws.

Dec. 12, 1980
[H.R. 6933]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title 35 of the United States Code, entitled "Patents", is amended by adding after chapter 29 the following new chapter 30:

Patent and trademark laws, amendment.

"CHAPTER 30—PRIOR ART CITATIONS TO OFFICE AND REEXAMINATION OF PATENTS

"Sec.
"301. Citation of prior art.
"302. Request for reexamination.
"303. Determination of issue by Commissioner.
"304. Reexamination order by Commissioner.
"305. Conduct of reexamination proceedings.
"306. Appeal.
"307. Certificate of patentability, unpatentability, and claim cancellation.

"§ 301. Citation of prior art

35 USC 301.

"Any person at any time may cite to the Office in writing prior art consisting of patents or printed publications which that person believes to have a bearing on the patentability of any claim of a particular patent. If the person explains in writing the pertinency and manner of applying such prior art to at least one claim of the patent, the citation of such prior art and the explanation thereof will become a part of the official file of the patent. At the written request of the person citing the prior art, his or her identity will be excluded from the patent file and kept confidential.

"§ 302. Request for reexamination

35 USC 302.

"Any person at any time may file a request for reexamination by the Office of any claim of a patent on the basis of any prior art cited under the provisions of section 301 of this title. The request must be in writing and must be accompanied by payment of a reexamination fee established by the Commissioner of Patents pursuant to the provisions of section 41 of this title. The request must set forth the pertinency and manner of applying cited prior art to every claim for which reexamination is requested. Unless the requesting person is the owner of the patent, the Commissioner promptly will send a copy of the request to the owner of record of the patent.

Fee.

Post, p. 3017.

"§ 303. Determination of issue by Commissioner

35 USC 303.

"(a) Within three months following the filing of a request for reexamination under the provisions of section 302 of this title, the Commissioner will determine whether a substantial new question of patentability affecting any claim of the patent concerned is raised by the request, with or without consideration of other patents or printed publications. On his own initiative, and any time, the Commissioner may determine whether a substantial new question of patentability is

the provisions of section 301 of this title.

"(b) A record of the Commissioner's determination under subsection (a) of this section will be placed in the official file of the patent, and a copy promptly will be given or mailed to the owner of record of the patent and to the person requesting reexamination, if any.

"(c) A determination by the Commissioner pursuant to subsection (a) of this section that no substantial new question of patentability has been raised will be final and nonappealable. Upon such a determination, the Commissioner may refund a portion of the reexamination fee required under section 302 of this title.

304. **"§ 304. Reexamination order by Commissioner**

"If, in a determination made under the provisions of subsection 303(a) of this title, the Commissioner finds that a substantial new question of patentability affecting any claim of a patent is raised, the determination will include an order for reexamination of the patent for resolution of the question. The patent owner will be given a reasonable period, not less than two months from the date a copy of the determination is given or mailed to him, within which he may file a statement on such question, including any amendment to his patent and new claim or claims he may wish to propose, for consideration in the reexamination. If the patent owner files such a statement, he promptly will serve a copy of it on the person who has requested reexamination under the provisions of section 302 of this title. Within a period of two months from the date of service, that person may file and have considered in the reexamination a reply to any statement filed by the patent owner. That person promptly will serve on the patent owner a copy of any reply filed.

period.

305. **"§ 305. Conduct of reexamination proceedings**

"After the times for filing the statement and reply provided for by section 304 of this title have expired, reexamination will be conducted according to the procedures established for initial examination under the provisions of sections 132 and 133 of this title. In any reexamination proceeding under this chapter, the patent owner will be permitted to propose any amendment to his patent and a new claim or claims thereto, in order to distinguish the invention as claimed from the prior art cited under the provisions of section 301 of this title, or in response to a decision adverse to the patentability of a claim of a patent. No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter. All reexamination proceedings under this section, including any appeal to the Board of Appeals, will be conducted with special dispatch within the Office.

132, 133.

306. **"§ 306. Appeal**

"The patent owner involved in a reexamination proceeding under this chapter may appeal under the provisions of section 134 of this title, and may seek court review under the provisions of sections 141 to 145 of this title, with respect to any decision adverse to the patentability of any original or proposed amended or new claim of the patent.

134.

141-145.

307. **"§ 307. Certificate of patentability, unpatentability, and claim cancellation**

"(a) In a reexamination proceeding under this chapter, when the time for appeal has expired or any appeal proceeding has terminated, ing in the patent any proposed amended or new claim determined to be patentable.

"(b) Any proposed amended or new claim determined to be patentable and incorporated into a patent following a reexamination proceeding will have the same effect as that specified in section 252 of this title for reissued patents on the right of any person who made, purchased, or used anything patented by such proposed amended or new claim, or who made substantial preparation for the same, prior to issuance of a certificate under the provisions of subsection (a) of this section.".

35 USC 252.

SEC. 2. Section 41 of title 35, United States Code, is amended to read as follows:

"§ 41. Patent fees

35 USC 41.

"(a) The Commissioner of Patents will establish fees for the processing of an application for a patent, from filing through disposition by issuance or abandonment, for maintaining a patent in force, and for providing all other services and materials related to patents. No fee will be established for maintaining a design patent in force.

"(b) By the first day of the first fiscal year beginning on or after one calendar year after enactment of this Act, fees for the actual processing of an application for a patent, other than for a design patent, from filing through disposition by issuance or abandonment, will recover in aggregate 25 per centum of the estimated average cost to the Office of such processing. By the first day of the first fiscal year beginning on or after one calendar year after enactment, fees for the processing of an application for a design patent, from filing through disposition by issuance or abandonment, will recover in aggregate 50 per centum of the estimated average cost to the Office of such processing.

"(c) By the fifteenth fiscal year following the date of enactment of this Act, fees for maintaining patents in force will recover 25 per centum of the estimated cost to the Office, for the year in which such maintenance fees are received, of the actual processing all applications for patents, other than for design patents, from filing through disposition by issuance or abandonment. Fees for maintaining a patent in force will be due three years and six months, seven years and six months, and eleven years and six months after the grant of the patent. Unless payment of the applicable maintenance fee is received in the Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period. The Commissioner may require the payment of a surcharge as a condition of accepting within such six-month grace period the late payment of an applicable maintenance fee.

"(d) By the first day of the first fiscal year beginning on or after one calendar year after enactment, fees for all other services or materials related to patents will recover the estimated average cost to the Office of performing the service or furnishing the material. The yearly fee for providing a library specified in section 13 of this title with uncertified printed copies of the specifications and drawings for all patents issued in that year will be $50.

35 USC 13.

"(e) The Commissioner may waive the payment of any fee for any service or material related to patents in connection with an occasional or incidental request made by a department or agency of the

Waiver.

any applicant issued a notice under section 182 of this title with a copy of the specifications and drawings for all patents referred to in that notice without charge.

"(f) Fees will be adjusted by the Commissioner to achieve the levels of recovery specified in this section; however, no patent application processing fee or fee for maintaining a patent in force will be adjusted more than once every three years.

"(g) No fee established by the Commissioner under this section will take effect prior to sixty days following notice in the Federal Register.".

SEC. 3. Section 42 of title 35, United States Code, is amended to read as follows:

"§ 42. Patent and Trademark Office funding

"(a) All fees for services performed by or materials furnished by the Patent and Trademark Office will be payable to the Commissioner.

"(b) All fees paid to the Commissioner and all appropriations for defraying the costs of the activities of the Patent and Trademark Office will be credited to the Patent and Trademark Office Appropriation Account in the Treasury of the United States, the provisions of section 725e of title 31, United States Code, notwithstanding.

"(c) Revenues from fees will be available to the Commissioner of Patents to carry out, to the extent provided for in appropriation Acts, the activities of the Patent and Trademark Office.

"(d) The Commissioner may refund any fee paid by mistake or any amount paid in excess of that required.".

SEC. 4. Section 154 of title 35, United States Code, is amended by deleting the word "issue".

SEC. 5. Section 31 of the Trademark Act of 1946, as amended (15 U.S.C. 1113), is amended to read as follows:

"§ 31. Fees

"(a) The Commissioner of Patents will establish fees for the filing and processing of an application for the registration of a trademark or other mark and for all other services performed by and materials furnished by the Patent and Trademark Office related to trademarks and other marks. Fees will be set and adjusted by the Commissioner to recover in aggregate 50 per centum of the estimated average cost to the Office of such processing. Fees for all other services or materials related to trademarks and other marks will recover the estimated average cost to the Office of performing the service or furnishing the material. However, no fee for the filing or processing of an application for the registration of a trademark or other mark or for the renewal or assignment of a trademark or other mark will be adjusted more than once every three years. No fee established under this section will take effect prior to sixty days following notice in the Federal Register.

"(b) The Commissioner may waive the payment of any fee for any service or material related to trademarks or other marks in connection with an occasional request made by a department or agency of the Government, or any officer thereof. The Indian Arts and Crafts Board will not be charged any fee to register Government trademarks of genuineness and quality for Indian products or for products of particular Indian tribes and groups.".

SEC. 6. (a) Title 35 of the United States Code, entitled "Patents", is amended by adding after chapter 37 the following new chapter 38:

"Sec.
"200. Policy and objective.
"201. Definitions.
"202. Disposition of rights.
"203. March-in rights.
"204. Preference for United States industry.
"205. Confidentiality.
"206. Uniform clauses and regulations.
"207. Domestic and foreign protection of federally owned inventions.
"208. Regulations governing Federal licensing.
"209. Restrictions on licensing of federally owned inventions.
"210. Precedence of chapter.
"211. Relationship to antitrust laws.

"§ 200. Policy and objective 35 USC 200.

"It is the policy and objective of the Congress to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of small business firms in federally supported research and development efforts; to promote collaboration between commercial concerns and nonprofit organizations, including universities; to ensure that inventions made by nonprofit organizations and small business firms are used in a manner to promote free competition and enterprise; to promote the commercialization and public availability of inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and to minimize the costs of administering policies in this area.

"§ 201. Definitions 35 USC 201.

"As used in this chapter—

"(a) The term 'Federal agency' means any executive agency as defined in section 105 of title 5, United States Code, and the military departments as defined by section 102 of title 5, United States Code.

"(b) The term 'funding agreement' means any contract, grant, or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal Government. Such term includes any assignment, substitution of parties, or subcontract of any type entered into for the performance of experimental, developmental, or research work under a funding agreement as herein defined.

"(c) The term 'contractor' means any person, small business firm, or nonprofit organization that is a party to a funding agreement.

"(d) The term 'invention' means any invention or discovery which is or may be patentable or otherwise protectable under this title.

"(e) The term 'subject invention' means any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement.

"(f) The term 'practical application' means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish

Federal agency approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use shall not be deemed commercial sale or use as to other fields of use, and a first commercial sale or use with respect to a product of the invention shall not be deemed to end the exclusive period to different subsequent products covered by the invention; (C) a requirement that the contractor share royalties with the inventor; and (D) a requirement that the balance of any royalties or income earned by the contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, be utilized for the support of scientific research or education.

"(8) The requirements of sections 203 and 204 of this chapter.

"(d) If a contractor does not elect to retain title to a subject invention in cases subject to this section, the Federal agency may consider and after consultation with the contractor grant requests for retention of rights by the inventor subject to the provisions of this Act and regulations promulgated hereunder.

"(e) In any case when a Federal employee is a coinventor of any invention made under a funding agreement with a nonprofit organization or small business firm, the Federal agency employing such coinventor is authorized to transfer or assign whatever rights it may acquire in the subject invention from its employee to the contractor subject to the conditions set forth in this chapter.

"(f)(1) No funding agreement with a small business firm or nonprofit organization shall contain a provision allowing a Federal agency to require the licensing to third parties of inventions owned by the contractor that are not subject inventions unless such provision has been approved by the head of the agency and a written justification has been signed by the head of the agency. Any such provision shall clearly state whether the licensing may be required in connection with the practice of a subject invention, a specifically identified work object, or both. The head of the agency may not delegate the authority to approve provisions or sign justifications required by this paragraph.

"(2) A Federal agency shall not require the licensing of third parties under any such provision unless the head of the agency determines that the use of the invention by others is necessary for the practice of a subject invention or for the use of a work object of the funding agreement and that such action is necessary to achieve the practical application of the subject invention or work object. Any such determination shall be on the record after an opportunity for an agency hearing. Any action commenced for judicial review of such determination shall be brought within sixty days after notification of such determination.

"§ 203. March-in rights

"With respect to any subject invention in which a small business firm or nonprofit organization has acquired title under this chapter, the Federal agency under whose funding agreement the subject invention was made shall have the right, in accordance with such procedures as are provided in regulations promulgated hereunder to require the contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such request, to grant such—

"(a) action is necessary because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

"(b) action is necessary to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;

"(c) action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or

"(d) action is necessary because the agreement required by section 204 has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to section 204.

"§ 204. Preference for United States industry 35 USC 204.

"Notwithstanding any other provision of this chapter, no small business firm or nonprofit organization which receives title to any subject invention and no assignee of any such small business firm or nonprofit organization shall grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the Federal agency under whose funding agreement the invention was made upon a showing by the small business firm, nonprofit organization, or assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. Waiver.

"§ 205. Confidentiality 35 USC 205.

"Federal agencies are authorized to withhold from disclosure to the public information disclosing any invention in which the Federal Government owns or may own a right, title, or interest (including a nonexclusive license) for a reasonable time in order for a patent application to be filed. Furthermore, Federal agencies shall not be required to release copies of any document which is part of an application for patent filed with the United States Patent and Trademark Office or with any foreign patent office.

"§ 206. Uniform clauses and regulations 35 USC 206.

"The Office of Federal Procurement Policy, after receiving recommendations of the Office of Science and Technology Policy, may issue regulations which may be made applicable to Federal agencies implementing the provisions of sections 202 through 204 of this chapter and the Office of Federal Procurement Policy shall establish standard funding agreement provisions required under this chapter.

"§ 207. Domestic and foreign protection of federally owned inventions 35 USC 207.

"Each Federal agency is authorized to—

protection in the United States and in foreign countries on inventions in which the Federal Government owns a right, title, or interest;

"(2) grant nonexclusive, exclusive, or partially exclusive licenses under federally owned patent applications, patents, or other forms of protection obtained, royalty-free or for royalties or other consideration, and on such terms and conditions, including the grant to the licensee of the right of enforcement pursuant to the provisions of chapter 29 of this title as determined appropriate in the public interest;

"(3) undertake all other suitable and necessary steps to protect and administer rights to federally owned inventions on behalf of the Federal Government either directly or through contract; and

"(4) transfer custody and administration, in whole or in part, to another Federal agency, of the right, title, or interest in any federally owned invention.

"§ 208. Regulations governing Federal licensing

"The Administrator of General Services is authorized to promulgate regulations specifying the terms and conditions upon which any federally owned invention, other than inventions owned by the Tennessee Valley Authority, may be licensed on a nonexclusive, partially exclusive, or exclusive basis.

"§ 209. Restrictions on licensing of federally owned inventions

"(a) No Federal agency shall grant any license under a patent or patent application on a federally owned invention unless the person requesting the license has supplied the agency with a plan for development and/or marketing of the invention, except that any such plan may be treated by the Federal agency as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under section 552 of title 5 of the United States Code.

"(b) A Federal agency shall normally grant the right to use or sell any federally owned invention in the United States only to a licensee that agrees that any products embodying the invention or produced through the use of the invention will be manufactured substantially in the United States.

"(c)(1) Each Federal agency may grant exclusive or partially exclusive licenses in any invention covered by a federally owned domestic patent or patent application only if, after public notice and opportunity for filing written objections, it is determined that—

"(A) the interests of the Federal Government and the public will best be served by the proposed license, in view of the applicant's intentions, plans, and ability to bring the invention to practical application or otherwise promote the invention's utilization by the public;

"(B) the desired practical application has not been achieved, or is not likely expeditiously to be achieved, under any nonexclusive license which has been granted, or which may be granted, on the invention;

"(C) exclusive or partially exclusive licensing is a reasonable and necessary incentive to call forth the investment of risk capital and expenditures to bring the invention to practical application or otherwise promote the invention's utilization by the public; and

(D) exclusive licensing is a reasonable and necessary incentive to call forth the investment of risk capital and expenditures to bring the invention to practical application or otherwise promote the invention's utilization by the public.

"(2) A Federal agency shall not grant such exclusive or partially exclusive license under paragraph (1) of this subsection if it determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with the antitrust laws. Antitrust factors.

"(3) First preference in the exclusive or partially exclusive licensing of federally owned inventions shall go to small business firms submitting plans that are determined by the agency to be within the capabilities of the firms and equally likely, if executed, to bring the invention to practical application as any plans submitted by applicants that are not small business firms. Small business preference.

"(d) After consideration of whether the interests of the Federal Government or United States industry in foreign commerce will be enhanced, any Federal agency may grant exclusive or partially exclusive licenses in any invention covered by a foreign patent application or patent, after public notice and opportunity for filing written objections, except that a Federal agency shall not grant such exclusive or partially exclusive license if it determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the United States in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with antitrust laws. Antitrust factors.

"(e) The Federal agency shall maintain a record of determinations to grant exclusive or partially exclusive licenses. Record.

"(f) Any grant of a license shall contain such terms and conditions as the Federal agency determines appropriate for the protection of the interests of the Federal Government and the public, including provisions for the following: Terms and conditions.

"(1) periodic reporting on the utilization or efforts at obtaining utilization that are being made by the licensee with particular reference to the plan submitted: *Provided,* That any such information may be treated by the Federal agency as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under section 552 of title 5 of the United States Code;

"(2) the right of the Federal agency to terminate such license in whole or in part if it determines that the licensee is not executing the plan submitted with its request for a license and the licensee cannot otherwise demonstrate to the satisfaction of the Federal agency that it has taken or can be expected to take within a reasonable time, effective steps to achieve practical application of the invention;

"(3) the right of the Federal agency to terminate such license in whole or in part if the licensee is in breach of an agreement obtained pursuant to paragraph (b) of this section; and

"(4) the right of the Federal agency to terminate the license in whole or in part if the agency determines that such action is necessary to meet requirements for public use specified by Federal regulations issued after the date of the license and such requirements are not reasonably satisfied by the licensee.

"(a) This chapter shall take precedence over any other Act which would require a disposition of rights in subject inventions of small business firms or nonprofit organizations contractors in a manner that is inconsistent with this chapter, including but not necessarily limited to the following:

"(1) section 10(a) of the Act of June 29, 1935, as added by title I of the Act of August 14, 1946 (7 U.S.C. 427i(a); 60 Stat. 1085);

"(2) section 205(a) of the Act of August 14, 1946 (7 U.S.C. 1624(a); 60 Stat. 1090);

"(3) section 501(c) of the Federal Mine Safety and Health Act of 1977 (30 U.S.C. 951(c); 83 Stat. 742); 1 Stat. 1320.

"(4) section 106(c) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C 1395(c); 80 Stat. 721);

"(5) section 12 of the National Science Foundation Act of 1950 (42 U.S.C. 1871(a); 82 Stat. 360); 4 Stat. 154.

"(6) section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182; 68 Stat. 943); 8 Stat. 944.

"(7) section 305 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2457);

"(8) section 6 of the Coal Research Development Act of 1960 (30 U.S.C. 666; 74 Stat. 337);

"(9) section 4 of the Helium Act Amendments of 1960 (50 U.S.C. 167b; 74 Stat. 920);

"(10) section 32 of the Arms Control and Disarmament Act of 1961 (22 U.S.C. 2572; 75 Stat. 634);

"(11) subsection (e) of section 302 of the Appalachian Regional Development Act of 1965 (40 U.S.C. App. 302(e); 79 Stat. 5);

"(12) section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901; 88 Stat. 1878); 8 Stat. 1887. 2 USC 5908.

"(13) section 5(d) of the Consumer Product Safety Act (15 U.S.C. 2054(d); 86 Stat. 1211);

"(14) section 3 of the Act of April 5, 1944 (30 U.S.C. 323; 58 Stat. 191);

"(15) section 8001(c)(3) of the Solid Waste Disposal Act (42 U.S.C, 6981(c); 90 Stat. 2829);

"(16) section 219 of the Foreign Assistance Act of 1961 (22 U.S.C. 2179; 83 Stat. 806);

"(17) section 427(b) of the Federal Mine Health and Safety Act of 1977 (30 U.S.C. 937(b); 86 Stat. 155);

"(18) section 306(d) of the Surface Mining and Reclamation Act of 1977 (30 U.S.C. 1226(d); 91 Stat. 455);

"(19) section 21(d) of the Federal Fire Prevention and Control Act of 1974 (15 U.S.C. 2218(d); 88 Stat. 1548);

"(20) section 6(b) of the Solar Photovoltaic Energy Research Development and Demonstration Act of 1978 (42 U.S.C. 5585(b); 92 Stat. 2516);

"(21) section 12 of the Native Latex Commercialization and Economic Development Act of 1978 (7 U.S.C. 178(j); 92 Stat. 2533); and USC 178j.

"(22) section 408 of the Water Resources and Development Act of 1978 (42 U.S.C. 7879; 92 Stat. 1360). Stat. 1316.

The Act creating this chapter shall be construed to take precedence over any future Act unless that Act specifically cites this Act and provides that it shall take precedence over this Act.

"(b) Nothing in this chapter is intended to alter the effect of the laws cited in paragraph (a) of this section or any other laws with respect to the disposition of rights in inventions made in the performance of work under funding agreements with persons other than nonprofit organizations or small business firms.

"(c) Nothing in this chapter is intended to limit the authority of agencies to agree to the disposition of rights in inventions made in the performance of work under funding agreements with persons other than nonprofit organizations or small business firms in accordance with the Statement of Government Patent Policy issued on August 23, 1971 (36 Fed. Reg. 16887), agency regulations, or other applicable regulations or to otherwise limit the authority of agencies to allow such persons to retain ownership of inventions. Any disposition of rights in inventions made in accordance with the Statement or implementing regulations, including any disposition occurring before enactment of this section, are hereby authorized. Rights, disposition.

"(d) Nothing in this chapter shall be construed to require the disclosure of intelligence sources or methods or to otherwise affect the authority granted to the Director of Central Intelligence by statute or Executive order for the protection of intelligence sources or methods. Disclosure.

"§ 211. Relationship to antitrust laws 35 USC 211.

"Nothing in this chapter shall be deemed to convey to any person immunity from civil or criminal liability, or to create any defenses to actions, under any antitrust law.".

(b) The table of chapters for title 35, United States Code, is amended by adding immediately after the item relating to chapter 37 the following:

"38. Patent rights in inventions made with Federal assistance.".

SEC. 7. AMENDMENTS TO OTHER ACTS.—The following Acts are amended as follows:

(a) Section 156 of the Atomic Energy Act of 1954 (42 U.S.C. 2186; 68 Stat. 947) is amended by deleting the words "held by the Commission or".

(b) The National Aeronautics and Space Act of 1958 is amended by repealing paragraph (g) of section 305 (42 U.S.C. 2457(g); 72 Stat. 436).

(c) The Federal Nonnuclear Energy Research and Development Act of 1974 is amended by repealing paragraphs (g), (h), and (i) of section 9 (42 U.S.C. 5908 (g), (h), and (i); 88 Stat. 1889-1891).

SEC. 8. (a) Sections 2, 4, and 5 of this Act will take effect upon enactment. Effective dates 35 USC 41 not

(b) Section 1 of this Act will take effect on the first day of the seventh month beginning after its enactment and will apply to patents in force as of that date or issued thereafter.

(c) Section 3 of this Act will take effect on the first day of the first fiscal year beginning on or after one calendar year after enactment. However, until section 3 takes effect, the Commissioner may credit the Patent and Trademark Office appropriation account in the Treasury of the United States with the revenues from collected reexamination fees, which will be available to pay the costs to the Office of reexamination proceedings.

(d) Any fee in effect as of the date of enactment of this Act will remain in effect until a corresponding fee established under section 41 of title 35, United States Code, or section 1113 of title 15, United States Code, takes effect.

(e) Fees for maintaining a patent in force will not be applicable to patents applied for prior to the date of enactment of this Act.

seventh month beginning after its enactment. Implementing regulations may be issued earlier.

(g) Sections 8 and 9 will take effect on the date of enactment of this Act.

Computerized data and retrieval system, report to Congress. 5 USC 14 note.

SEC. 9. The Commissioner of Patents and Trademarks shall report to Congress, within two years after the effective date of this Act, a plan to identify, and if necessary develop or have developed, computerized data and retrieval systems equivalent to the latest state of the art which can be applied to all aspects of the operation of the Patent and Trademark Office, and particularly to the patent search file, the patent classification system, and the trademark search file. The report shall specify the cost of implementing the plan, how rapidly the plan can be implemented by the Patent and Trademark Office, without regard to funding which is or which may be available for this purpose in the future.

SEC. 10. (a) Section 101 of title 17 of the United States Code is amended to add at the end thereof the following new language:

Computer program."

"A 'computer program' is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.".

(b) Section 117 of title 17 of the United States Code is amended to read as follows:

17 USC 117.

"§ 117. Limitations on exclusive rights: Computer programs

17 USC 106.

"Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

"(1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or

"(2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.

this section may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program. Adaptations so prepared may be transferred only with the authorization of the copyright owner.".

Approved December 12, 1980.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 96-1307, Pt. I (Comm. on the Judiciary) and No. 96-1307, Pt. 2 (Comm. on Government Operations).

CONGRESSIONAL RECORD, Vol. 126 (1980):

Nov. 17, considered and passed House.

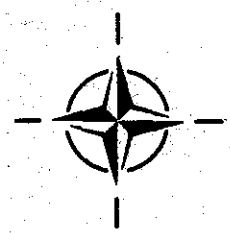
Nov. 20, considered and passed Senate, amended.

Nov. 21, House concurred in Senate amendment.

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28 Aug 73

NORTH ATLANTIC TREATY ORGANIZATION



DRAFTING INTERNATIONAL COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS



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DRAFTING

INTERNATIONAL CO-OPERATIVE RESEARCH

AND DEVELOPMENT AGREEMENTS

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A. INTRODUCTORY NOTE

International agreements pertaining to co-operative programmes of research and development vary considerably in content depending upon the policies and practices of the governments involved, the purposes of each government in entering the co-operative programme, the nature of the work to be performed, the complexity of the programme, the degree of co-operation required, the balance of the contributions of participating governments, and other factors. Accordingly, no set format can be established for drafting an agreement (or memorandum of understanding) to cover all co-operative programmes. Agreements are tailored to fit the needs of the particular programme.

The attached "Checklist of items to be considered in drafting international co-operative research and development agreements" has been formulated by the NATO Working Group on Industrial Property from national experiences in the hope that it will be useful as a guide to those who may have to draft or negotiate international agreements relating to co-operative research and development. Accompanying the Checklist is a document entitled "Explanation to the Checklist" which develops and explains in greater detail the items contained in the Checklist.

The areas covered by the "Checklist" and "Explanation" are those most frequently found in international agreements and each of these areas should be considered with a view to establishing whether they should be included in an agreement on a particular programme. The use of the Checklist and Explanation as being primarily a guide is emphasised. Neither the format nor the topic areas covered are mandatory or, depending on the programme, necessarily desirable. It is possible that other arrangements may be negotiated between participants mutually to suit the circumstances of their particular co-operative effort.

B. CHECKLIST OF ITEMS TO BE CONSIDERED IN DRAFTING INTERNATIONAL CO-OPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS (1)

1. TITLE PAGE
   - (a) List of participants (governments, organizations, etc.)
   - (b) Department or office authorised to represent each participant
   - (c) Title of programme (code name if classified)
   - (d) Programme security classification, if any

2. TABLE OF CONTENTS

3. INTRODUCTION
   - (a) Participants (governments, organizations, etc.)
   - (b) Department or office or officer authorised to represent each participant
   - (c) Broad objective of programme
   - (d) Statement of previous actions in same field by participants

4. REFERENCE TO PERTINENT EXISTING AGREEMENTS
   - (a) Umbrella-type research and development agreements covering programme area
   - (b) Patent interchange agreements
   - (c) Security agreements
   - (d) Data exchange agreements
   - (e) NATO agreements and their implementing procedures
   - (f) Other governing or pertinent agreements

5. REFERENCE TO CONTROLLING LAWS AND REGULATIONS OF THE PARTICIPATING COUNTRIES
   - (a) On export of equipment and information
   - (b) Financial control over contractors foreign affairs

(1) The term "Agreement" is used to cover all types of international memoranda of understanding, arrangements, protocols, etc.

(b) Adjustment of possible imbalances that might occur in the course of the programme

(c) Exceptions to the principle of work sharing (e.g. inclusion or exclusion of capital assets which can also be used outside the programme - or of work carried out in establishments of the participants).

9. COST SHARING

(a) Contribution of each participant expressed in :

(i) total financial contribution

(ii) annual financial contribution

(iii) percentage of total expenditure

(b) Contribution of participants subject to availability of appropriate funds

(c) Mechanics and timing of transfer of funds, if any

(d) Basic currency utilised

10. PROGRAMME MANAGEMENT

(a) Management organization set forth in accordance with programme requirements

(b) Authority and restrictions placed on management, for example, authority of programme managers to change work, see 7 (f) above

(c) Channels of communication

(d) Means of making decisions and settling disputes

11. ADMINISTRATIVE FACILITIES

(a) Availability of premises

(b) Translation

(c) Accounting procedures and auditing

(d) Meetings

12. REPORTS REQUIREMENTS

(a) Types of reports required to be exchanged among participants

(i) summary reports of background work

(ii) progress reports of work under programme at stated intervals

(iii) detailed reports on specific areas of work

14. RIGHTS TO INVENTIONS, TECHNICAL INFORMATION AND OTHER INTELLECTUAL PROPERTY

(a) Inventions and Information

(i) what rights, for example, foreground, background, or reproduction of equipment participants are to acquire for :

- programme purposes
- defence purposes
- defence sales purposes
- commercial sales purposes .
- other purposes

(ii) terms and conditions under which such rights are acquired :

- royalty free or fair and reasonable terms
- sub-licensing authority
- territorial restrictions
- grant aid authorisations
- production commitments

(b) Particular aspects of Background Inventions and Information

(i) background inventions and information not to be incorporated in programme work unless owner will licence all participants

(ii) no obligation on part of participants to obtain rights to background inventions and information

(iii) best efforts of each participant to obtain rights for other participants.

15. INVENTIONS AND INFORMATION OWNED BY NON-PARTICIPANTS

(a) Such inventions and information not to be incorporated into programme unless all participants may obtain a licence or a right to use

(b) Proprietary material marked with restrictive legend

(c) Protection of proprietary information against unauthorised use or disclosure

(d) Means for disposition of claims for unauthorised use or disclosure.

16. INDEPENDENT RESEARCH AND DEVELOPMENT EFFORT

(a) Relationship of any parallel or related work performed by one participant outside of the immediate programme

(c) Responsibilities of receiving participant for damages to loaned equipment, injury to personnel, return of equipment in reasonable condition.

20. TEST, EVALUATION AND IDENTIFICATION

(a) Use of test and evaluation facilities of one participant for testing of components developed by another participant or of jointly developed items

(b) Conditions under which the facilities will be made available or the tests and evaluations conducted; distribution of costs, equipment and personnel to be furnished, test standards to be used

(c) Responsibilities and rights of each participant with respect to damages to equipment and injury to personnel

(d) Application, if any, of NATO Allied Quality Assurance Publication and NATO Codification System.

21. RECOUPMENT OF RESEARCH AND DEVELOPMENT COSTS

(a) Possible imposition of a levy for the total or partial recoupment of research and development costs by the participants, their contractors or sub-contractors in the event of commercial use of the results of the programme - sale of equipment or assignment of industrial property rights to third parties

(b) Amount of this levy or the basis on which it will later be determined or readjusted including a possible ceiling on application of the levy

(c) Mechanism for sharing the sums recovered amongst the participants (e.g. proportional to their contribution)

(d) Possible imposition of a levy on sales of components developed prior to or outside the programme by one of the participants or its industry

(e) Specific limit : in time, in percentage, in amount.

22. SALES AND TRANSFERS TO NON-PARTICIPANTS

Conditions under which technical information or material developed by one participant may be transferred by a second participant to non-participants.

23. PARTICIPATION OF OTHER GOVERNMENTS OR ORGANIZATIONS

(a) Means for permitting another government or organization to enter the programme

(b) Conformance with C-M(66)33 (2nd revise) of 8th January, 1969.

(c) Rights of Withdrawing or Terminating Participant

(i) cessation of all financial and work responsibilities subsequent to formal date of withdrawal or termination

(ii) continuing rights to use all technical information, inventions and material resulting from the programme up to the date of withdrawal or termination

(iii) right to have the participants continuing in the programme protect any technical information or material it contributed prior to withdrawal or termination.

27. CONTRACT PROVISIONS

Contracts entered into individually by a participant under the programme to contain suitable provisions necessary to comply with the agreement.

28. DUTIES AND TAXES

Conditions under which transfers of hardware may be made between participants in so far as duties and taxes are concerned.

29. MISCELLANEOUS

(a) Duration of agreement

(b) Effective date of agreement

(c) Number of official copies

(d) Authorised language(s)

C. EXPLANATION OF THE CHECKLIST

1. TITLE PAGE

A title page indicating the title of the programme may mention the participants in the co-operative programme and the department or office authorised to represent each of the participants. When the programme covers classified material, use of a code name may be advantageous. Frequently, the negotiation of an international co-operative agreement is classified even though the programme itself is unclassified. In such cases, the agreement may be declassified upon signature by all parties. A note to that effect is appropriate to the title page.

2. TABLE OF CONTENTS

In lengthy or complex international agreements, an index or table of contents frequently serves a useful purpose.

3. INTRODUCTION

An introductory paragraph (preamble) is frequently used to set the basic scene for the agreement and may indicate inter alia :

(a) the participants in the co-operative programme;

(b) the department, office or officer authorised to represent each participant;

(c) the broad objective of the co-operative programme set forth in very general terms;

(d) a brief statement of previous actions taken by the participants in the same field either unilaterally or multilaterally.

4. REFERENCE TO PERTINENT EXISTING AGREEMENTS

It is considered very useful to mention those existing international agreements between the participants that may control, limit or otherwise be pertinent to the agreement under negotiation. There may exist cases where specific R&D programmes may be covered or authorised by broad "umbrella-type" bilateral agreements to perform co-operative research and development. Other agreements, such as the bilateral and multilateral agreements to exchange technical information, or the patent and technical information interchange agreements between the United States and practically all of the other NATO countries may be applicable. (See paragraph 24 for reference to security agreements). Wherever applicable, the two NATO Agreements in the field of industrial property, the NATO Agreement on the Mutual Safeguarding of Secrecy of Inventions relating to Defence and for which Applications for Patents have been made, and the NATO Agreement on the Communication of Technical Information for Defence Purposes, should also be mentioned as well as their Implementing Procedures. Reference to the Basic Agreement on Inspection for NATO Co-operative Projects, C-M(64)44, C-R(62)63, may also be considered.

(c) To avoid lack of flexibility in the programme, particularly where the emphasis on different courses of action could change as the research or development work proceeds, it may be desirable to authorise the national programme managers to make certain changes in programme detail or emphasis. Such authority may be limited to changes within the scope of the agreement and may require the approval of national higher authorities. In those cases where it is desirable to set forth the scheduled programme work in detail, such details may be annexed to the agreement. The programme managers may be authorised to amend only those portions of the programme set out in the annex.

8. WORK SHARING

The agreement should set forth the precise parts of the programme to be executed by each of the participants, and define their respective obligations and responsibilities. The share of work performed by each participant may be expressed in terms such as manpower, the development of a specific item, the conduct of a specific area of research or the production of a specific number of items. Adjustments of imbalances that might occur in the course of the programme may be provided for.

9. COST SHARING

(a) The contribution of each participant toward the programme objective may be expressed in financial terms; in such cases, the agreement would stipulate the manner in which such contribution is made; for example, the total sum to be expended by each participant, the annual sum to be expended by each participant over a period of years, the percentage cost-sharing of the funds to be expended for completion of the programme.

(b) In some cases, the financial contribution of a participant and, therefore, its continuance in the programme, must be made subject to the availability of appropriated funds. As a consequence, this should be stipulated in the agreement, if applicable.

(c) Where funds are to be transferred between participants, the conditions of transfer should be set forth.

(d) If necessary, the agreement would provide for the basic currency to be utilised for measuring the cost sharing, calculating the contributions and making certain payments.

10. PROGRAMME MANAGEMENT

Programme management varies considerably with the nature and complexity of the co-operative programme : for instance : (a) In those programmes in which each participant carries out separate but related lines of research work, the only management necessary may be the naming of national offices as channels of communication for the exchange of information reports and the like. (b) Where interlinking research and development programmes require a higher

(iii) special detailed reports on specific areas of work being performed upon the request of one or more participants;

(iv) reports on the test and evaluation of equipment prototypes and components;

(v) final reports summarising the work done under the programme by each of the participants;

(vi) reports on the existence of proprietary rights on components, processes or equipment which were developed prior to or outside the programme but which are necessary to the full utilisation of the programme results.

(b) Frequency of reporting.

(c) Number of copies.

(d) Language(s).

(e) Availability to non-participants.

(f) Restrictive use markings on security and proprietary information.

13. DISCLOSURE OF INVENTIONS AND TECHNICAL INFORMATION

(a) Inventions generated in the course of the programme (Foreground Inventions)

Provision should be made for the prompt and detailed disclosure of all inventions generated in the course of the programme (Foreground Inventions) to each of the participants. Provision should also be made as to the countries where applications for patents should be filed on foreground inventions. An international co-operative agreement might include a provision to the effect that the originating participant will file, cause to be filed or will provide each of the other participants the right to file patent applications on all inventions conceived or first actually reduced to practice under the programme.

(b) Inventions generated prior to or outside the scope of the programme (Background Inventions)

Occasionally, inventions owned by participants or their contractors and generated prior to or outside the scope of the programme (Background Inventions) are necessary to the furtherance of the co-operative programme or to the utilisation of the results of the programme. Patents covering these inventions may dominate inventions generated under the programme or cover previously developed processes, components, tools, etc., incorporated into the item which is the subject of the co-operative programme. Accordingly, the agreement might provide that each participant should promptly advise the others of the existence of such background patent rights.

(b) all rights that are necessary for the participants to produce or have produced the developed item for the intended purpose and in the framework of the industrial organization on which the participants will agree for the programme in question.

The following table shows the elements that should be considered in drafting the above rights clauses. Each element of the first column may be combined with one or more of the other columns.

(1) SUBJECT MATTER

(a) inventions (b) technical information including reports (c) industrial designs (d) copyright	generated in the course of the programme or outside the programme	owned or controlled by participants, contractors or third parties	incorporated, or not, in the programme result

(2) RIGHTS TO BE SECURED FOR PARTICIPANTS

(a) title			
(b) user right (licence) (i) to produce (ii) to sell (iii) for maintenance or production of spare parts	restricted or not, to : (a) item developed (b) defence purposes (c) gov't purposes (d) specific territory	free of charge or on payment	exclusive or non-exclusive
(c) availability for information and evaluation only			
(d) technical assistance to and from participants and contractors			
(e) right to file applications of their own for patent or industrial design if owner does not want to file			

(c) necessity of using rights of non-participants or non-contractors ;

(d) national law and practices regarding authorisation of contractors to use protected inventions or proprietary technical information without the permission of the owners.

15. INVENTIONS AND INFORMATION OWNED BY NON-PARTICIPANTS

Technical information and inventions owned by parties other than the participants or their contractors may on occasion be incorporated in an item developed under a co-operative agreement. Where such a situation is likely to occur, consideration should be given to including a provision that no such item will be incorporated in the end product unless the owner thereof is willing to grant licences to all participants on fair and reasonable terms, or to offer at least a fixed option production price or a cost plus profit price which may be investigated by the pertinent national auditing agencies.

The participants should agree that any proprietary information owned by their contractors or by other parties shall remain subject to limited rights of use and disclosure ; that it will be suitably stamped with restrictive legends prior to disclosure to each other, and that any claims for unauthorised use or disclosure of such proprietary information will be the subject of consultation to ensure proper compensation to the injured owner of the information .

16. INDEPENDENT RESEARCH AND DEVELOPMENT EFFORT

On occasion, one of the participants may desire to perform additional research and development work which is technically related to the work to be performed under the agreement but is otherwise separate and distinct from that work and the co-operative programme. Such independently performed, additional work may parallel, overlap, expand upon or otherwise be related to the programme work but is done at the sole cost and responsibility of that participant outside its commitments under the programme. Examples may include : efforts to achieve the objectives of the programme through alternative approaches ; related research and development being performed by a different agency of the participant than the one which entered into the agreement, or the development of more sophisticated components than contemplated by the agreement.

On other occasions, equipment loaned by one participant to another may be independently worked upon and improved by the recipient ; or equipment developed under a co-operative agreement may, at a later date, be independently improved upon by one of the participants.

If any of the above possibilities are contemplated, the co-operative agreement should clearly indicate the restrictions, if any, on such independent work ; the availability to the other participants of technical information derived from such independent work ; and the conditions under which the other participants may obtain the rights to use the technical information. The agreement could also indicate the conditions under which this independent work could be incorporated in the common programme.

20. TEST, EVALUATION AND IDENTIFICATION

During the course of the co-operative programme, it is often necessary to test, control and evaluate the equipment or its components developed jointly or by one of the participants. Provisions, therefore, might be included in the agreement wherever such testing and evaluation may be envisaged. The relevant clauses might provide for the use of the test and evaluation facilities of one participant by another participant; they might also provide for the conditions of such testing, in particular the sharing of the cost, the problems of the staff to be made available, the methods of testing. They should also define the responsibilities of the participants as to damages, etc., and their rights on the results of the tests. For purposes of control and evaluation the NATO rules on Allied Quality Assurance, as laid down in the series of publication Allied Quality Assurance Publication (AQAPs), might be applied with the necessary modifications to suit national requirements. Note might also be taken of the possible need for the equipment or project to be identified to the standard NATO Codification System and, if this is required as in the case of all joint NATO projects, the National Codification Bureau should be requested to participate at an early stage.

21. RECOUPMENT OF RESEARCH AND DEVELOPMENT COSTS

(a) The possibility of recoupment of the cost of R&D by imposing a levy on sales made by contractors to third parties of items resulting from a collaborative research and development programme may be considered.

If the parties agree on imposing such a levy, it should be set forth :

- whether these levies should be uniform in all circumstances;
- whether a certain percentage or sum should be agreed a priori or at the appropriate time;
- how sums recovered could be distributed among the participants;
- whether to set a specific ceiling on the application of levies either in time, percentage recovery or amount.

(b) It should also be considered :

- whether levies should also be paid by the participants on parts of the developed item which were developed independently by one participant.

22. SALES AND TRANSFERS TO NON-PARTICIPANTS

In addition to provisions regarding security and defence sales, it may be necessary to ensure that technical information or material developed by one participant will not be sold or otherwise transferred by another participant to non-participating parties without the consent of the owner. The general conditions of such transfer might be fixed in the agreement, which would facilitate any such transactions in the practice.

Research and development work being performed under contracts entered into by participants prior to the agreement and continuing during at least the initial stages of the co-operative programme, however, may present problems. The work performed under such contracts prior to the effective date of the programme would be classed as "background information" in so far as the co-operative programme is concerned. The exchange of data and rights to this background information would be subject to the contracting policies of the participants. Few, if any, participants normally obtain the right to transfer information and rights freely to other participants.

On the other hand, the work performed under such contracts subsequent to the effective date of the programme could be considered as foreground information and, therefore, under the usual agreement terms, subject to transfer freely to other participants.

Accordingly, information and inventions resulting from existing contracts should be either (1) specifically excluded from the co-operative programme, or (2) specifically indicated as falling within the definition of background information and inventions, even though the work may be partially carried out during the period of the co-operative programme, or (3) be considered as foreground information and inventions when the works involved have been, at least partially, carried out during the period of the co-operative programme development. If the third solution is selected, the existing contracts should be amended in such a manner as to grant rights to the other participants. In the event the latter method is utilised, the establishment of the effective date of the co-operative agreement must take into consideration the allowance of sufficient time to accomplish renegotiation of the contracts. Also the agreement should recognise the possible refusal of the contractor to negotiate such additional rights to other participants at a reasonable cost. (See also paragraph 14 above about inventions and technical information).

26. TERMINATION OR WITHDRAWAL

Governments and organizations entering into co-operative arrangements normally intend to continue such co-operation until the objectives of the programme have been achieved. However, many circumstances may require the withdrawal of one participant or the unscheduled termination of the whole programme. Accordingly, consideration should be given to setting forth the terms and conditions governing such a withdrawal or termination. Provisions should be set out dealing with the following main questions :

(a) Mechanics of Withdrawal or Termination

The agreement could stipulate the minimum time required for participants to give notice of withdrawal as well as the way such a notification should be formally addressed to the other partners. It could also provide for consultation among participants.

(b) Obligations of a Withdrawing or Terminating Participant

Participants withdrawing from or terminating an international co-operative programme will frequently be charged with certain obligations which continue in spite of withdrawal or termination. These obligations might include :

or budget-oriented terms, i.e. for a definite period of months or years, until the completion of a task or work function, or the expenditure of definite sums of money. Where the duration of the programme is function-oriented, care should be taken to ensure that the completion of the function is a definable act recognisable by all participants.

(b) Effective Date of Agreement

The agreement should state the date upon which it becomes effective. This may be either a specific future date or the date of last signature of the agreement by representatives of the participants. Where one or more of the participants have been carrying out pertinent work under existing contracts and it is desired to incorporate into the programme any work performed under such contracts, sufficient time must be allowed to permit amendment of the contracts.

(c) Number of Official Copies

The agreement should also stipulate the number of official copies in which its text has been established, as well as the recipients of these copies.

(d) Authorised Language(s)

The language or languages which will be officially used in the carrying out of the agreement should also be stipulated.

*Date_____

*Name_____
*Address_____
*_____
*_____

RE: MATERIALS TRANSFER AGREEMENT

Dear Dr. *_____:

Cetus Corporation agrees to provide you with certain research substances and know-how for the purpose of a scientific collaboration under the following conditions:

1. The parties to this Agreement are: Cetus Corporation, hereinafter "CETUS," *_____, hereinafter "INSTITUTION," and *_____, hereinafter "SCIENTIST."

2. The Material that is covered by this Agreement includes: (a) *_____; (b) any related biological material or associated know-how and data that will be received by SCIENTIST from CETUS; and (c) any substance and associated know-how and data that are replicated or derived therefrom by SCIENTIST or his/her co-workers. The Material is considered proprietary to CETUS. CETUS shall be free, in its sole discretion, to distribute the Material to others and to use it for its own purposes.

3. The Material shall be used in research *_____
_____.

4. SCIENTIST or INSTITUTION shall not distribute or release the Material to any person other than laboratory personnel under SCIENTIST's direct supervision and shall ensure that no one will be allowed to take or send this Material to any other location, unless written permission is obtained from the Vice President of Research and Development at CETUS. This Material is made available for investigational use only in laboratory animals or in in vitro experiments. SCIENTIST and INSTITUTION agree that the Material will not be used for any other purpose. Neither the Material nor any biological materials treated therewith will be used in human beings.

5. This Agreement and the resulting transfer of Material constitute a license to use the Material solely for academic or other not-for-profit purposes. Subject to the provisions in paragraph 8, SCIENTIST and INSTITUTION agree that nothing herein shall be deemed to grant to either any rights under any CETUS patents or any rights to use the Material for any products or processes for profit-making or commercial purposes. The Material will not be used in research that is subject to consulting or licensing obligations to another institution, corporation or business entity unless written permission is obtained from the Vice President of Research and Development at CETUS.

6. Subject to the provisions in paragraph 8, SCIENTIST and INSTITUTION shall have no rights in the Material other than as provided in this Agreement, and at the request of CETUS, SCIENTIST will return all unused Material.

7. SCIENTIST will inform CETUS, in confidence, of research results related to the Material by personal written communication or by providing CETUS with a draft manuscript describing the results of such research. CETUS shall be free to use such data and information for any purpose. SCIENTIST agrees to maintain the confidentiality of any information respecting the Material, with the exception, however, that if it is desired to publish or otherwise disclose such information in a noncommercial scientific communication, SCIENTIST will provide CETUS with a copy of any manuscript or abstract disclosing such information, prior to submission thereof to a publisher or to any third party, and in any case, not less than forty-five (45) days prior to any public disclosure, for the purpose of protecting proprietary or intellectual property of CETUS or INSTITUTION that might be contained in such information. If publication results from research using the Material, SCIENTIST agrees to acknowledge CETUS and/or give credit to CETUS scientists, as scientifically appropriate, based on any direct contribution they may make to the research. CETUS agrees that it will reference or acknowledge SCIENTIST's publications, as scientifically appropriate, in its publications, which may refer to the data developed by SCIENTIST.

8. If the research involving the Material results in an invention or substance that may be commercially useful, SCIENTIST will promptly disclose the invention or substance to INSTITUTION's Patent Administrator and notify the Patent Administrator of CETUS' role as a supplier of the Material used, as well as the role, if any, of any CETUS employee in creating the invention or substance. INSTITUTION, in cooperation with SCIENTIST, will promptly supply CETUS with a copy of the disclosure, in confidence, for CETUS' research and evaluation purposes only. In consideration of CETUS' providing of the Material, INSTITUTION, to the extent it is legally able to do so, hereby grants CETUS the first option to an exclusive license, at a reasonable royalty to be negotiated in good faith based on the respective parties' contributions and relevant industry standards, to commercially use the invention or substance, or at CETUS' option, a non-exclusive license.

9. The Material is experimental in nature and it is provided WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED. CETUS MAKES NO REPRESENTATION OR WARRANTY THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

10. In no event shall CETUS be liable for any use by SCIENTIST or INSTITUTION of the Material or any loss, claim, damage or liability, of whatsoever kind or nature, which may arise from or in connection with this Agreement or the use, handling or storage of the Material.

11. SCIENTIST and INSTITUTION will use the Material in compliance with all laws and governmental regulations and guidelines applicable to the Material for work with recombinant DNA, and when the Material is used in the United States, SCIENTIST will comply with current NIH guidelines.

12. This Agreement is not assignable, whether by operation of law or otherwise, without the prior written consent of the Vice President of Research and Development at CETUS.

Please return the original of this Agreement to me signed by you and by INSTITUTION's authorized representative; the copy is for your records. The Material will be shipped as soon as possible upon receipt of this signed Agreement.

Very truly yours,

CETUS CORPORATION

Jeffrey S. Price, Ph.D.
Vice President, Research and Development

JSP/LSC:jl

_____ _____
Signature of SCIENTIST Date

_____
Name

_____ _____
Signature of INSTITUTION's Authorized Representative Date

_____
Name

_____
Title

_____
Address

_____

SUPA Presentation
June 25, 1986

Special Concerns in Licensing Unpatented Biological Materials

David J. Maki*

I. The intentions and objectives of the parties should be clearly set forth.

   (a) Whereas clauses
   (b) Separate section reciting any relevant past relationship (including the scope of work to date), as well as the expectations during the term of the agreement.

II. The nature and identifying characteristics of the biological materials to be transferred should be clearly defined.

   (a) Separate definitions for each biological material transferred
   (b) Derivatives
      1. Random mutations
      2. Improvements through efforts by Licensee anticipated at time of licensing
      3. Unrelated improvements through efforts by Licensee
   (c) End products - relation to field of use restrictions

III. The ownership and history of development of the biological materials to be transferred should be clearly understood.

   (a) Detailed inquiry by industrial Licensee as to circumstances surrounding development/funding

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1. Funding through a governmental agency
   - conceived or reduced to practice in performance of the grant
   - application to unpatented biological materials
2. Funding through a private company

(b) Extent of university's ownership should be clearly defined.

IV. Warranties/Representations/Disclaimers

(a) Warranty of ownership
(b) Hold harmless provision
   1. Indemnification
   2. Governmental statutes and regulations
(c) Disclaim potential liability for patent infringement
(d) Disclaim express or implied warranties including merchantability or fitness for a particular purpose

V. Nature of rights granted

(a) Exclusive/nonexclusive
(b) Maintain, make, use, sell, have made; title retained by university
(c) Field of use restrictions/geographic restrictions
(d) Ability to transfer biological material to third party

VI. Know-how

(a) Continuing technical assistance

VII. Termination

(a) Return or destruction of biological materials.

VIII. Miscellaneous

(a) Replacement of the biological materials by the university; necessity to maintain samples

(b) Prohibition against use of university's name or associated symbols

(c) Most favored Licensee

*SEED and BERRY
6300 Columbia Center
Seattle, WA 98104-7092
(206)622-4900