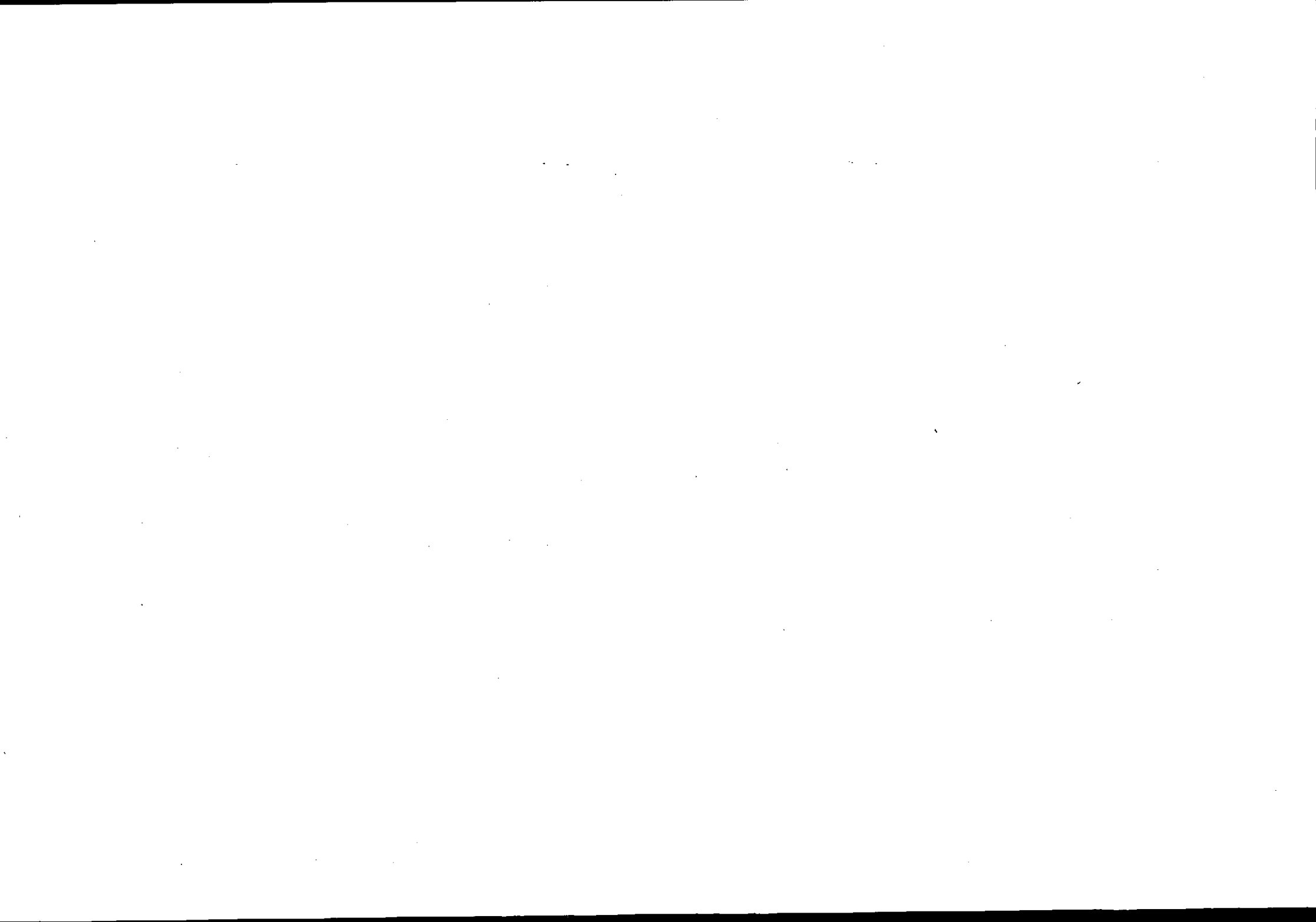
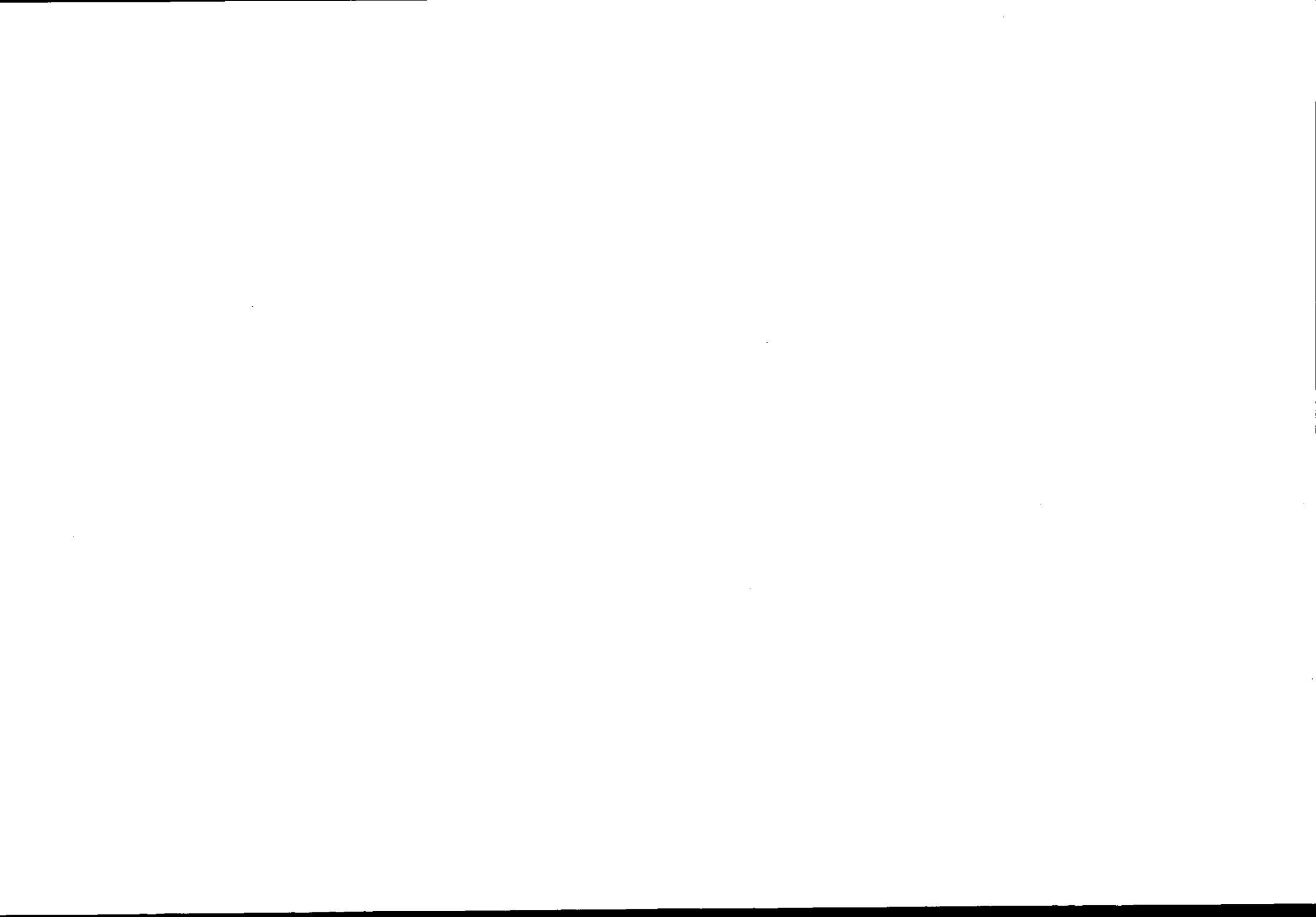


米欧の研究開発プロジェクトにおける 知的財産権の取り扱い

平成11年3月

財団法人 日本情報処理開発協会
先端情報技術研究所





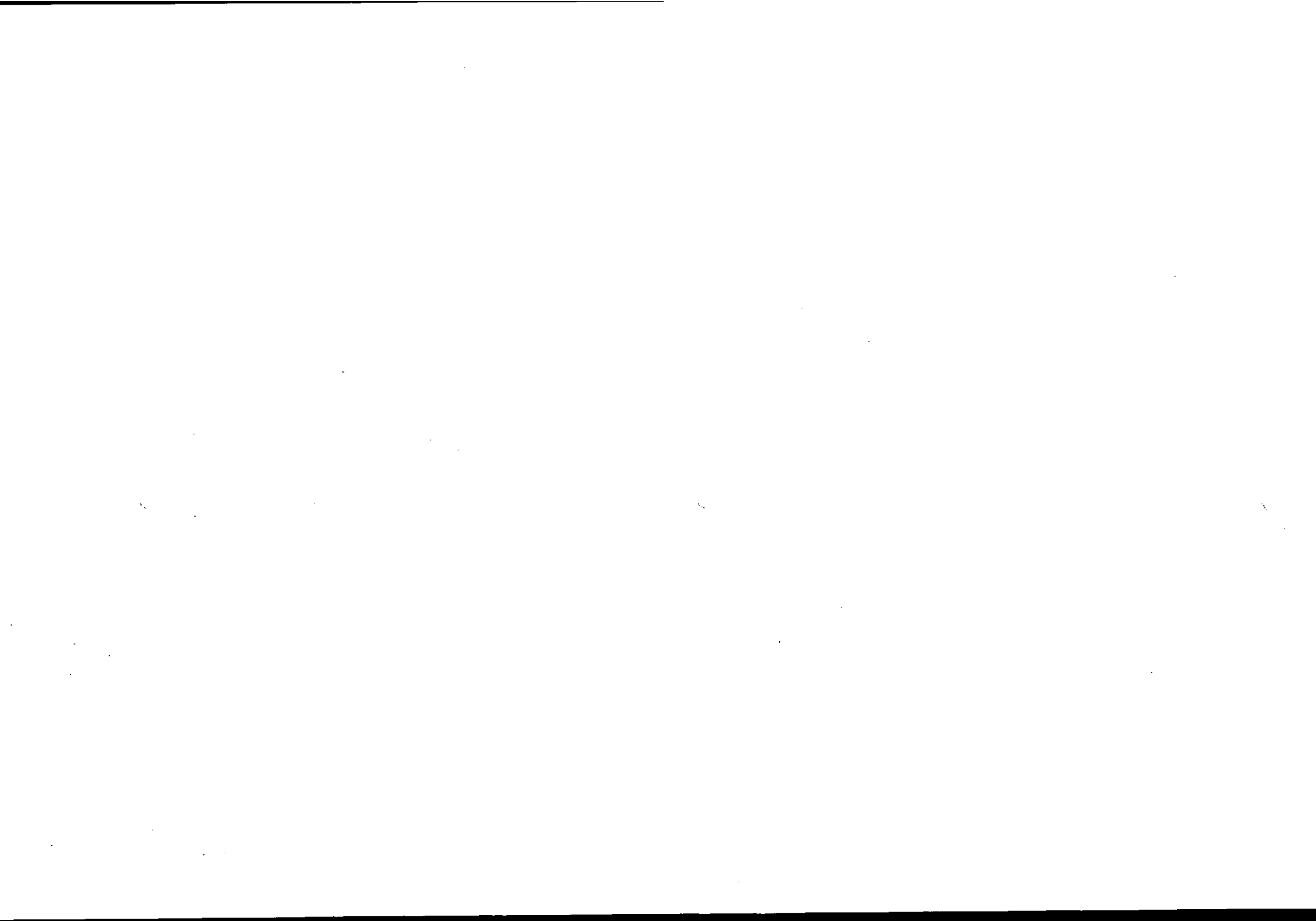
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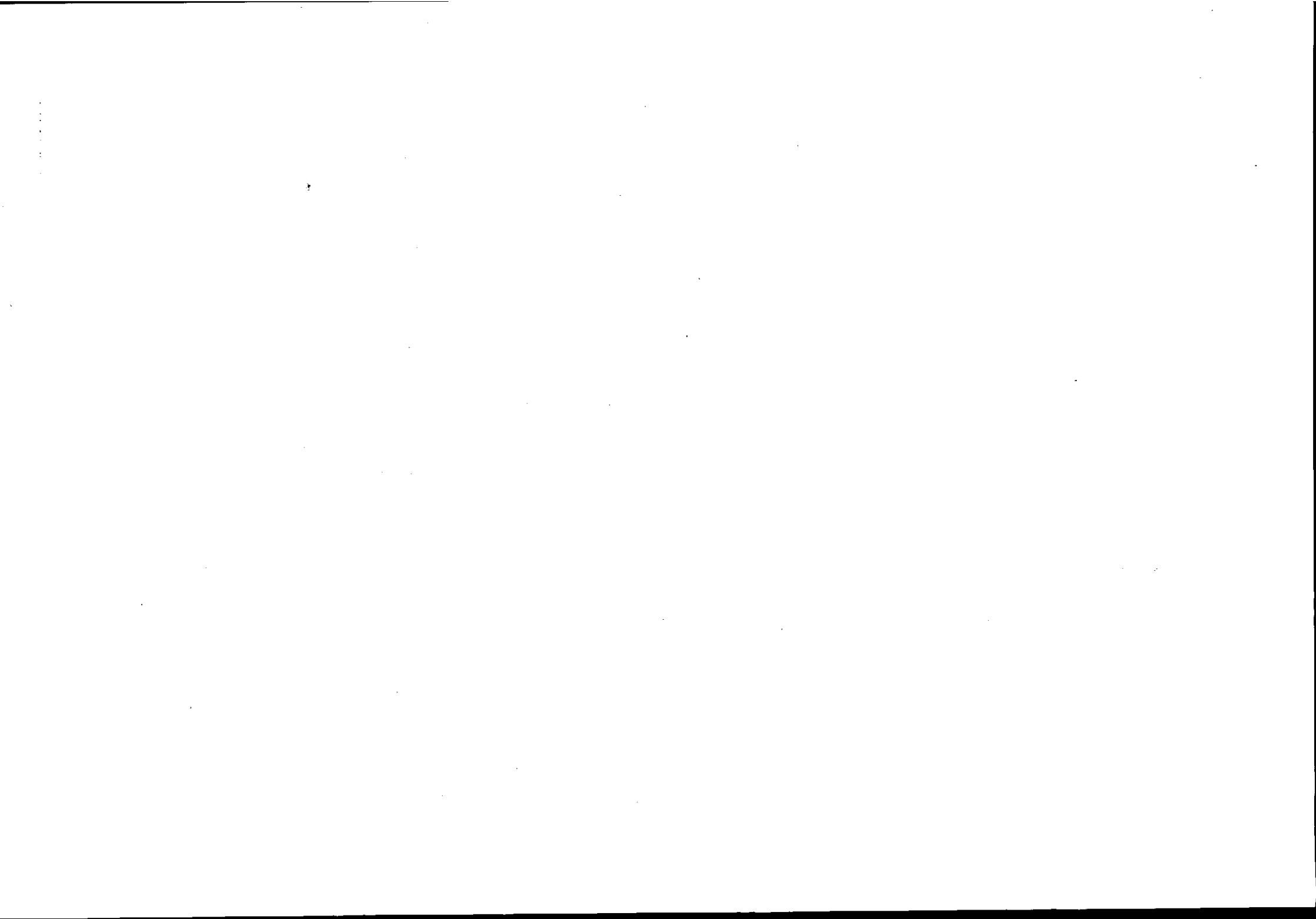
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第1章 知的財産権の概要

Introduction and overview

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3	IP practice variation by agency
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4-1	Government funded research
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A	<i>Appendix: List of interview contacts</i>

Four forms of Intellectual Property (IP) are distinguished, and receive different legal treatment

Four distinct forms of intellectual property are treated legally in entirely different ways
Copyright	A 'work' or finished product, fixed in a tangible medium of expression	<ul style="list-style-type: none"> • Exists as soon as work is 'fixed' (finished) • Can be protected further by 'registration'
Patent	An idea or a method (a classic 'invention'), not defined in any finalized form	<ul style="list-style-type: none"> • No coverage until patent application 'prosecuted' (agreed by patent office) - process typically takes 2-3 years and costs \$10,000 • The 'strongest' form of IP protection
Trademark	A distinctive mark, design or pattern associated with a particular product, service or brand	<ul style="list-style-type: none"> • Exists as soon as work is 'fixed' (finished) • Can be protected further by 'registration'
Trade secret	'Not generally known' information that provides (a company etc) a competitive advantage	<ul style="list-style-type: none"> • No specific protection - is not 'defined' until a dispute arises • 'After-the-fact' litigation can prevent usage of leaked trade secrets or seek damages

The primary categories of IP generated in government-funded work are copyright and patents.

In addition to the legal right of 'ownership' of IP, various mechanisms exist for controlling / gaining access to its use

Copyright
Patent

Trademark

Trade secret

Using the 'levers of control', government can seek to ensure the future beneficial use of IP but without taking ownership itself

- Preserving a "vote" in shaping a technology as it develops
- Controlling the publishing rights for certain strategically sensitive technologies (e.g., decryption)
- Regulating the commercial sale of certain technologies to keep them out of "enemy hands", typically via export restrictions

Legal rights associated with IP

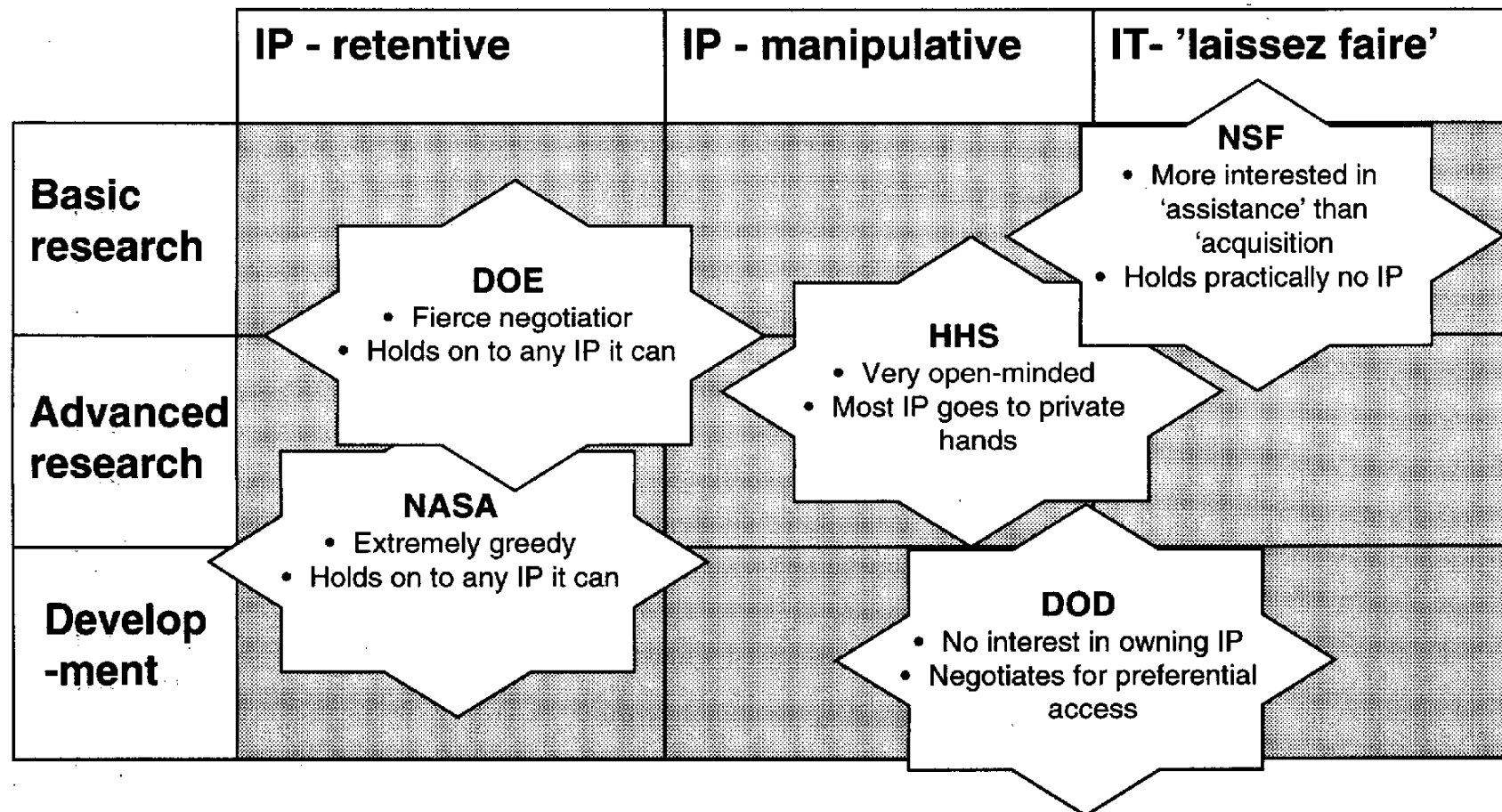
- Ownership (legal 'title' to the copyright or patent)
- Licensing rights (legal right to use copyrighted or patented IP owned by a third party)
 - exclusive or non-exclusive
 - royalty-free or with royalty
- Publishing rights (legal right to distribute the IP to third parties and set terms)
- March-in rights (the right to access, and influence the development and use of, IP owned by a third party)

Although a party may own IP, they may not hold publishing rights (in which case they can only use the IP themselves) or they may be forced to license the IP to a third party (in which case their ability to use the IP commercially is limited)

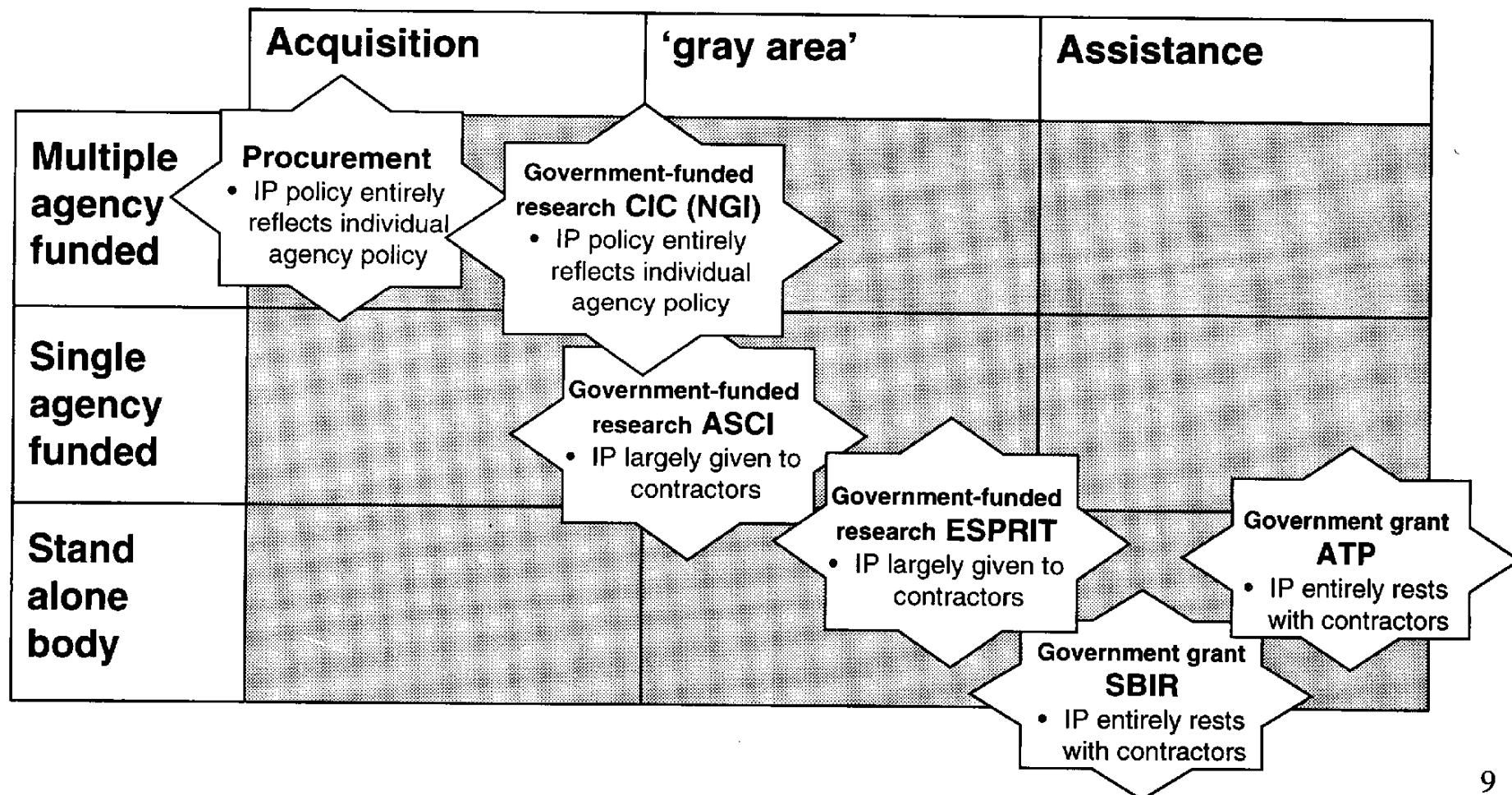
The fundamental philosophy underlying treatment of government IP is that it should be used to the ultimate benefit of the country

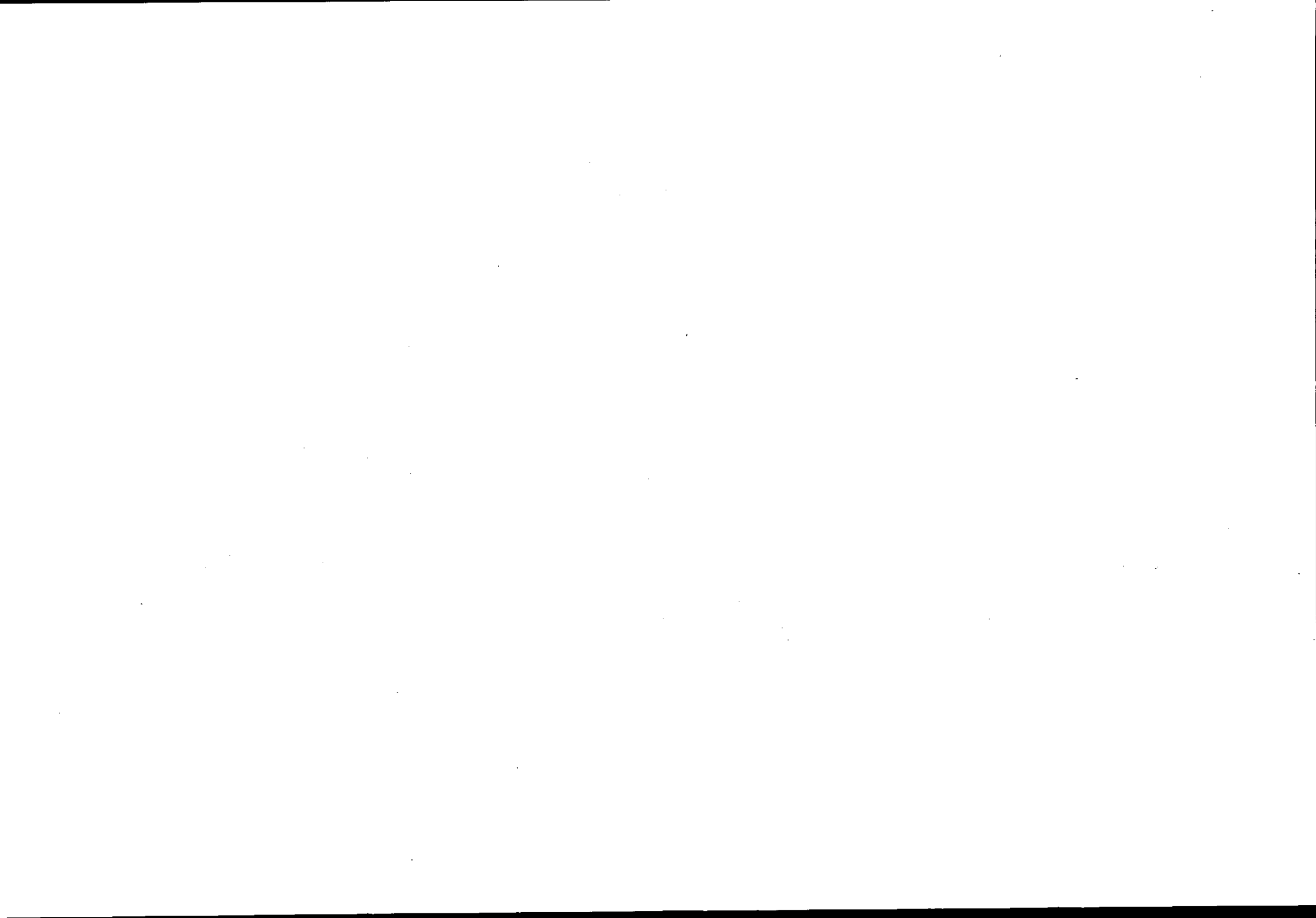
- Policy and practice affecting the treatment of IP generated on government funds is extremely complex, with many variations and little overall consensus
- However, the fundamental principle which has led to the eventual policy 'twists' is that IP should be put to use to the ultimate good of the country
- In practice, this forces the wielders of the government budget to try to balance sometimes conflicting forces:
 - In situations where the best use of IP would be development of a commercial product, IP best belongs in the private sector, where companies are better equipped than government to develop products; market forces will ensure that the best IP survives and evolves over time
 - On the other hand, if the best use of IP would be as the basis for further research, and that further research will also be paid for by government funds, then the best place for the IP would be in government hands - the government can distribute the IP to whomever it chooses, without fear of royalty payments
- Unfortunately, however, government actions are also often influenced by the more 'parochial', less idealistic attitudes of some administrators
 - Certain parts of government uphold the simplistic view that government holds a fiduciary responsibility: "what we pay for, we get"
 - Some agencies attempt to secure patents purely because the royalty streams can help keep them alive in the midst of budgetary cutbacks and increasing pressure to demonstrate good ROI

Individual US agency IP policies can be summarized by their mix of research purpose and institutional nature



The IP policies of specific funding instruments can be summarized by examining their funding source and contractual nature





第2章 知的財産権に関する法律と政策の背景

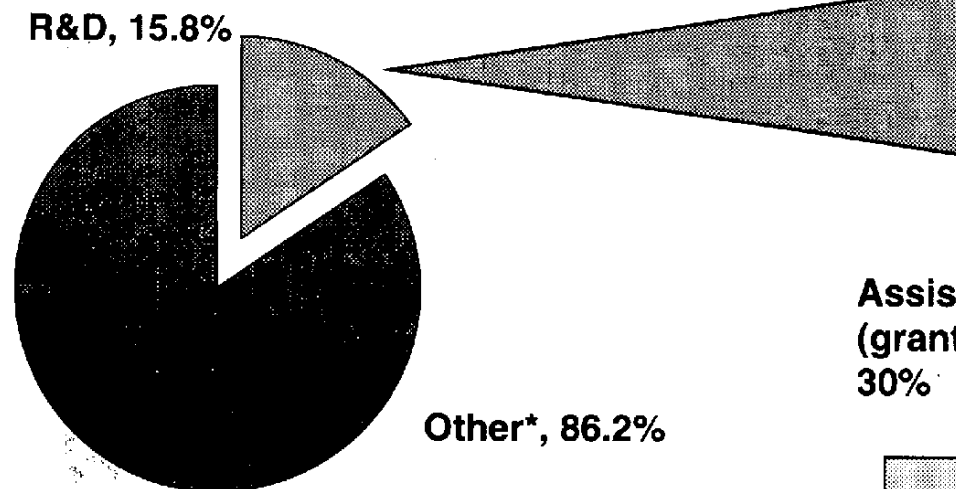
IP legislation and policy background

1	Introduction and overview
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The IP regulation applicable to IP generated through government funds is determined primarily by the nature of the funding vehicle

Only 15.8% of federal procurement is relatively high IP-generating R&D ...

1996 Federal Procurement Expenditure \$197.5bn



* Other includes real estate purchase, architectural and engineering work, construction, general supplies, and data processing

Cooperative agreements - approx 10%

Assistance (grants) - approx 30%

Acquisition (effectively another word for procurement) - approx 60%

... of which about half is treated contractually as 'acquisition'; the rest is considered assistance or cooperative agreements

Illustrative

**The IP regulation applicable to IP generated through government funds is determined primarily by the nature of the funding vehicle
(continued)**

Acquisition / Procurement	<ul style="list-style-type: none">• The primary consideration (in terms of sheer volume of IP to be dealt with)• Regulated by the FAR (Federal Acquisition Regulation)• FAR defines the specific implementation of other separate acts affecting IP, such as the Bayh Dole Act• Individual agencies permitted to enact their own variation of the FAR, superceding the government-side FAR
Assistance / Grants	<ul style="list-style-type: none">• Certain assistance programs are established by separate Acts (eg SBIR)• The remainder are regulated by OMB Circular A-110 and OMB Circular A-102
Cooperative Agreements	<ul style="list-style-type: none">• The Federal Grant and Cooperative Agreement Act 1977 set out the basic policy for cooperative agreements, as well as assistance / grants.• Most cooperative agreements are categorized as CRADAs, which are regulated by the Technology Transfer Act• IP treatment is usually set out in specific CRADA agreements, which tend to follow funding agency 'boilerplate' (standard practice)

Technology transfer legislation is also important as a result of the 'gray zone' between 'IP ownership' and technology transfer

IP developed by a company using government funds

IP developed by the government using government funds

Cooperative agreements

- Primary issue is 'title' - who retains ownership of the IP after it is developed
- Key legislation - as defined on page 9

- Issues of both 'transfer' and 'title' arise concurrently - policy usually has to be set on a case by case basis

- Primary issue is 'transfer' - how can the government transfer the technology into the private sector
- Key legislation: Stevenson Wylder

The primary mechanism of IP regulation is the FAR (Federal Acquisition Regulation), or legislation enacted by individual agencies to supercede the FAR

- The majority of IP developed by non-government organizations while using government funds is contractually treated as 'acquisition' (all procurement of supplies, and about half of the R&D)
- The FAR was established to codify uniform policies for acquisition of supplies and services by executive agencies, and is the implementation vehicle for many policies defined in separate acts (such as the Bayh Dole policy on patent title)
- "The Government encourages the maximum practical commercial use of inventions made while performing Government contracts" [FAR 27.104 (a)]
- The FAR grants government contractors the right to apply for patents in their work for the government, although there are a number of possible reasons for exception
- However, copyright automatically resides with the government, although the government has the freedom to grant copyright to the contractors should they ask for it
- The FAR also allows each agency to develop its own 'agency-specific' FAR, which in practice most agencies do, resulting in significant variation in IP policy between agencies

The FAR grants government contractors the right to apply for patents in their work for the government, although there are a number of formal reasons for exception

- Unless contravened by the agency-specific implementation of the FAR, or unless specific reference is made in the contract, FAR 27.302 specifies that a contractor is allowed to apply for patents in his work ('contractor right to elect title')
- This section of the FAR was based on the Presidential Memorandum on Government Patent Policy of 1983, and Executive Order 12591 (which in turn were based on Bayh Dole)
- Section 27.302 also provides that in cases where contractor title would not lead to commercialization, the government can exercise a right to forcibly take title

Possible formal causes of exception

- ... When disclosure of classified subject matter (in patent applications or resulting from issuance of a patent) may be a violation of espionage or censorship related statutes and may be contrary to the interests of national security
- ... If the contractor is not located in the US or is subject to the control of a foreign government
- ... In exceptional circumstances when it is determined by the agency that restriction or elimination of the right to title will better promote policy and objectives of USC
- ... When foreign intelligence or counterintelligence activities would be threatened by awarding of patent
- ... When the contract includes operation of DOE GOCO facilities dedicated to naval nuclear propulsion or weapons-related programs

However, copyright automatically resides with the government, although the government has the freedom to grant copyright to the contractors should they ask for it

- The government sets out in basic policy on (usage, duplication and disclosure) rights to 'data' (copyright works) in FAR 27.404
- Under FAR 27.404, the government automatically acquires unlimited rights to data produced under federal contracts, unless the data includes previously copyrighted material, in which case the government receives a copyright license
- However, the copyright will normally be granted to a contractor should the contractor ask for it
- Even if copyright is passed to a contractor, however, the government retains an unlimited license, enabling it to use / duplicate / disclose the data

Possible formal causes of exception

- (A) The data consist of a report that represents the official views of the agency or that the agency is required by statute to prepare
- (B) The data are intended primarily for internal use by the Government
- (C) The data are of the type that the agency itself distributes to the public under an agency program
- (D) The Government determines that limitation on distribution of the data is in the national interest
- (E) The Government determines that the data should be disseminated without restriction

Software copyright, in particular, is explicitly covered by the FAR

- In the US, the 1976 Copyright Act (as amended 1980) expressly considers software a 'literary' work, and so copyright exists in the work immediately upon its creation (systems, methods of operation and processes are expressly excluded)
- Patent protection is also possible, but difficult to obtain - most software programs are deemed 'novel' but not 'new'
- Software developed by the government itself is expressly not copyrighted - Federal 'written works' are not covered by copyright unless explicit provision is made
- The FAR expressly defines software developed by contractors using government funds as 'data' which holds copyright, and is regulated by the FAR provisions
- In practice the usual policy is that code developed under government contract may be used by a contractor for commercial purposes
- However, the government usually gains a license enabling it to pass the software to other contractors for them to use as part of their work; those contractors, however, are not allowed to resell the software in its original form

European IP philosophy, *to the extent reflected in the Esprit program*, preserves contractors' rights to IP (over government claims), leaving IP in the hands of those most likely to commercialize.

- The general principle, at least with regard to 'foreground' IP, is
"if you develop it, you own it"
- The mission and philosophy of Esprit is clearly to encourage the sharing of information, and foster multiparty and pan-European exploitation of commercially viable research results. All partners in a funded effort, then, are theoretically entitled to sharing the fruits of their labors
- In accepting Esprit funds, contractors agree to share with all consortium members the right to "exploit" (which includes certain provisions for making available to those members certain "background" IP necessary for developing the "foreground" results).

第3章 省庁による知的財産権取り扱いのバリエーション

IP practice variation by agency

1	Introduction and overview
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The differing IT policies of different agencies, encapsulated in their respective legislative instruments, are a result of differing 'characters' as well as differing research purposes

Variation in legislation

- The FAR allows each agency to develop its own 'agency-specific' FAR, which in practice most agencies do, resulting in significant variation in IP policy between agencies
- The abundance of legislation and regulations means that in practice there is significant variance in the negotiation of IP issues

Differing 'institutional characters'

- The IP policies of the different agencies strongly reflect their 'institutional characters' and histories

Differing research purposes

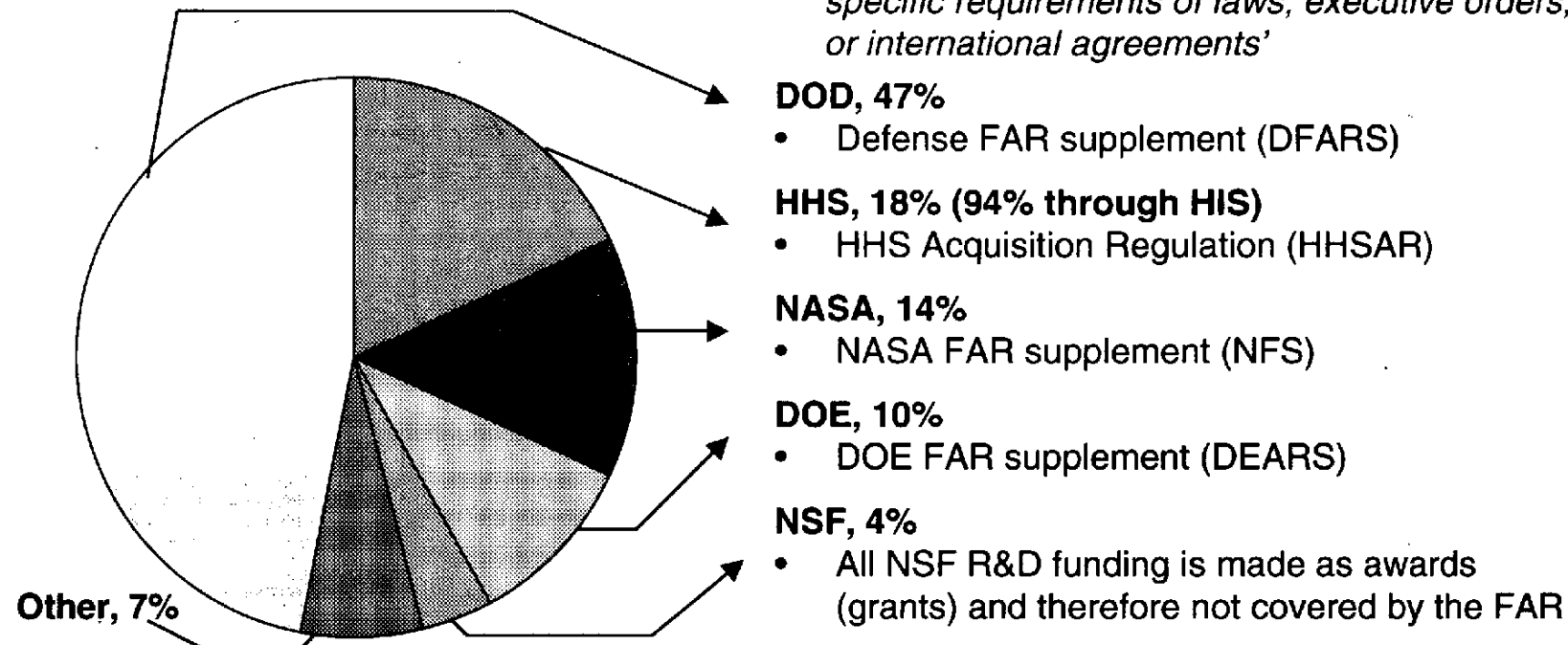
- The nature of research of an agency is the other key driver of IT policy
- The agencies have very different profiles in terms of nature of research

Summary

- Agency policies can be summarized by their mix of research purpose and institutional nature

The FAR allows each agency to develop its own 'agency-specific' FAR, which in practice most agencies do, resulting in significant variation in IP policy between agencies

Individual agency shares of 1997 federal R&D obligations



According to FAR 27.101, individual agencies are authorized to adopt alternate policies, procedures, and clauses, 'to the extent determined necessary to meet the specific requirements of laws, executive orders, treaties, or international agreements'

Note: DOD, HHS, NASA, DOE and NSF together comprise 93%
Source: Federal Funds for Research and Development, 1995, 1996 and 1997

The abundance of legislation and regulations means that in practice there is significant variance in the negotiation of IP issues

- While all agencies are guided by the same “spirit,” legislative vagueness leaves much latitude to each agency to follow its own guidelines/practices
 - FAR itself leaves much latitude and does not specify or delineate many “negotiables”-- such as royalty payments, exclusivity, publishing requirements, etc.
 - FAR both invites and permits waivers and exceptions to its clauses where agencies see fit... the larger agencies, with their well-developed contracting offices, can have an entire additional/alternative set of guidelines
- Regulations vary by funding mechanism: contract (FAR) vs. grant vs. CRADA
 - Some agencies, like DARPA, have an entire category of “Other R&D Transactions” to buy themselves maximum flexibility in determining appropriate IP terms
- Project-by-project negotiation claimed by even the most “rigid” agencies (ASCI/DOE)
- “Total flexibility and case-by-case judgment” -- DARPA
- The “individual” factor: program managers and agency staff have different negotiating “personalities”; some are more capitalistic, some are more greedy, some are more giving. --Burrows / CalTech

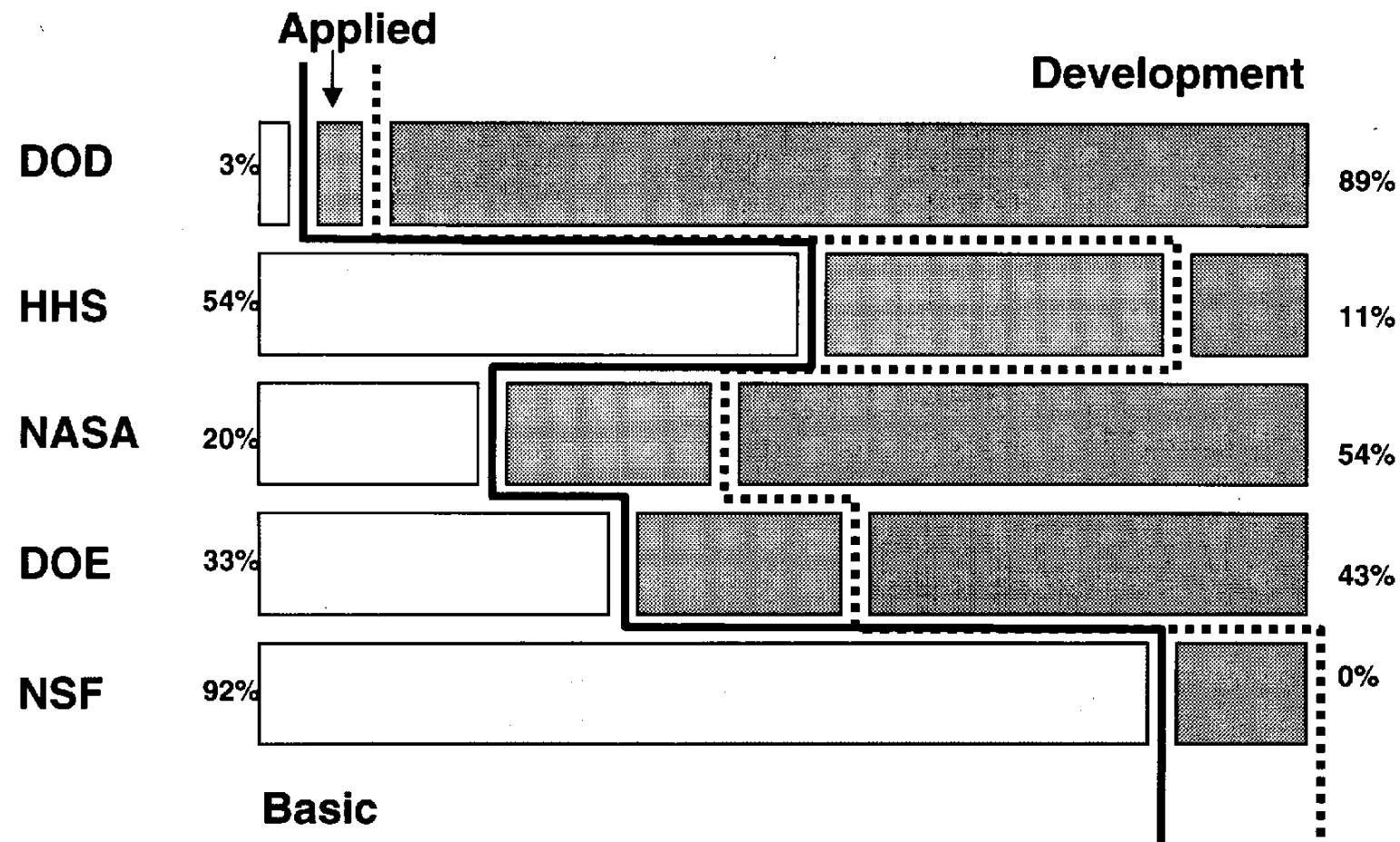
The IP policies of the different agencies strongly reflect their 'institutional characters' and histories

DOD	<ul style="list-style-type: none"> Procurement-minded, the DoD is rarely interested in owning IP; rather, it primarily negotiates to have preferential access (purchase, usage, discounts) to whatever technologies are developed
HHS	<ul style="list-style-type: none"> One of the forerunners of open-minded policy on both technology transfer and title in contractor. HHS studies in 1982 showed that HHS policies on IP, in particular technology transfer, were highly effective in stimulating effective commercial use of HHS biosciences IP
NASA	<ul style="list-style-type: none"> In the face of ever-declining federal funding, NASA holds the reputation for being one of the most capitalistic ('greedy') agencies. It seeks royalty streams to help fund other projects on its agenda, and has been known to play various contractors off competitively against each other to see who will yield the most over IP issues. It has also been known to litigate ex-post with contractors it has funded (eg Hughes over GeoSync Satellite) in an effort to seize IP claim to technologies they believe peripherally benefited from dollars they contributed.
DOE	<ul style="list-style-type: none"> Having developed a huge R&D infrastructure through its national labs (active in the Cold War), has a significant number of resources that need to stay busy and justify their existence. Its evaluation/measurement system provides incentive for it to "own" (in whatever way possible) as much IP as is possible... hence its reputation as a fierce negotiator for IP and its nickname-- "Department of Everything".
NSF	<ul style="list-style-type: none"> Even before Bayh-Dole, NSF philosophy / policy was to leave IP in all cases with private sector researchers/inventors. Most of its concern is in fostering the sharing of information amongst peers in the field, rather than creating commercial value. The NSF is more interested in "assistance" than "acquisition."

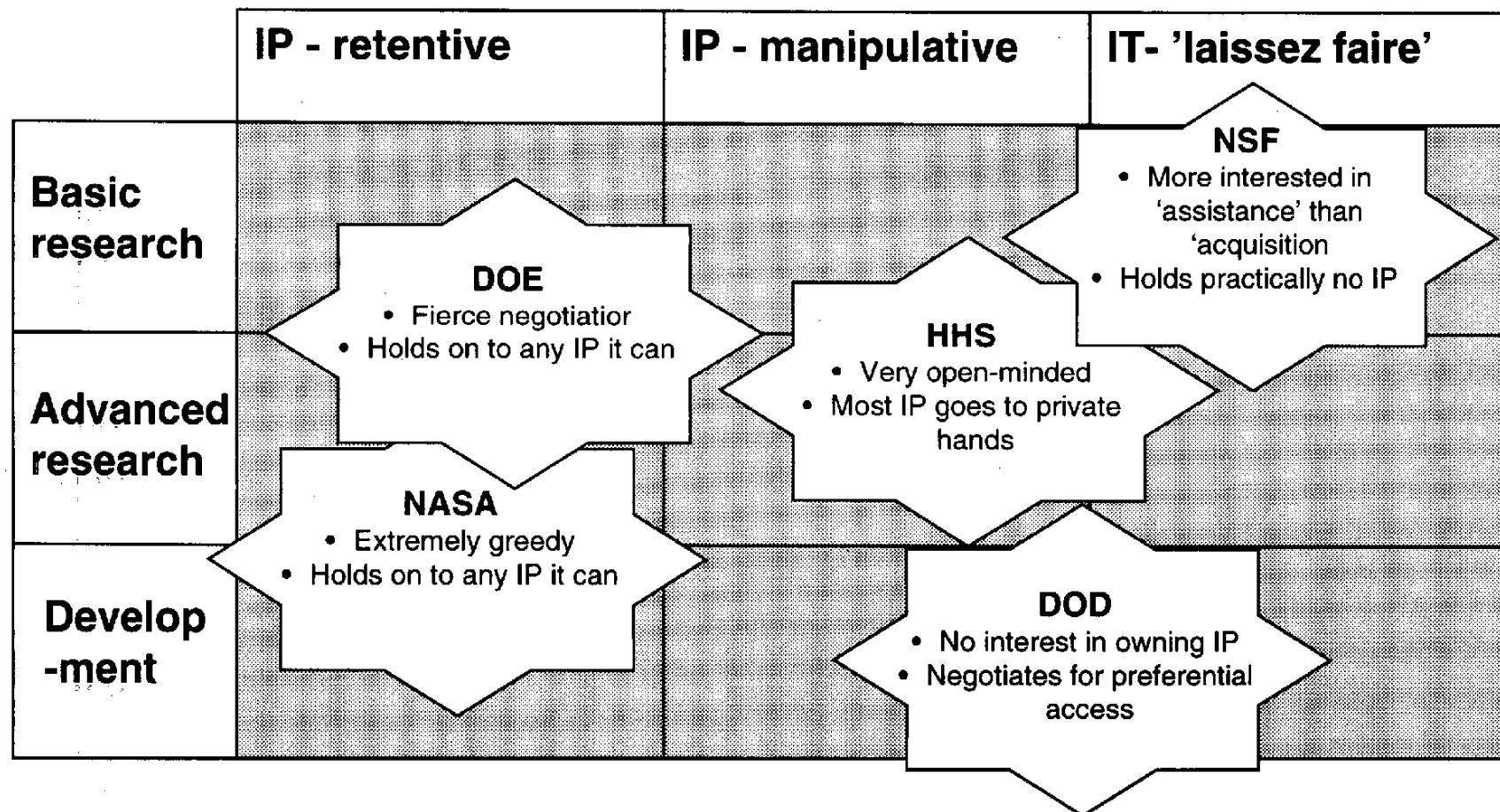
The nature of research of an agency is the other key driver of IT policy

- For an agency engaged in development work, the primary output of a particular project will be very close to a commercial product
- In this situation, the agency's primary motivation will be to ensure that the IP is in the hands of the organization most appropriate to conduct the commercialization - generally, this would be a commercial organization
- On the other hand, for an agency engaged in basic research, the primary output will be 'fundamental knowledge' which will be applied in further research, and perhaps in future more developmental research
- In this situation, the agency's primary motivation will be to ensure that access to the IP can be (freely) provided to the organization that will use the IP for the next project - generally, this would mean that the government itself is the most suitable holder of the IP

The agencies have very different profiles in terms of nature of research



Agency policies can be summarized by their mix of research purpose and institutional nature



1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order.

2. The second part of the document is a list of the topics that were discussed at the meeting. The topics are listed in alphabetical order.

3. The third part of the document is a list of the actions that were taken at the meeting. The actions are listed in alphabetical order.

4. The fourth part of the document is a list of the decisions that were made at the meeting. The decisions are listed in alphabetical order.

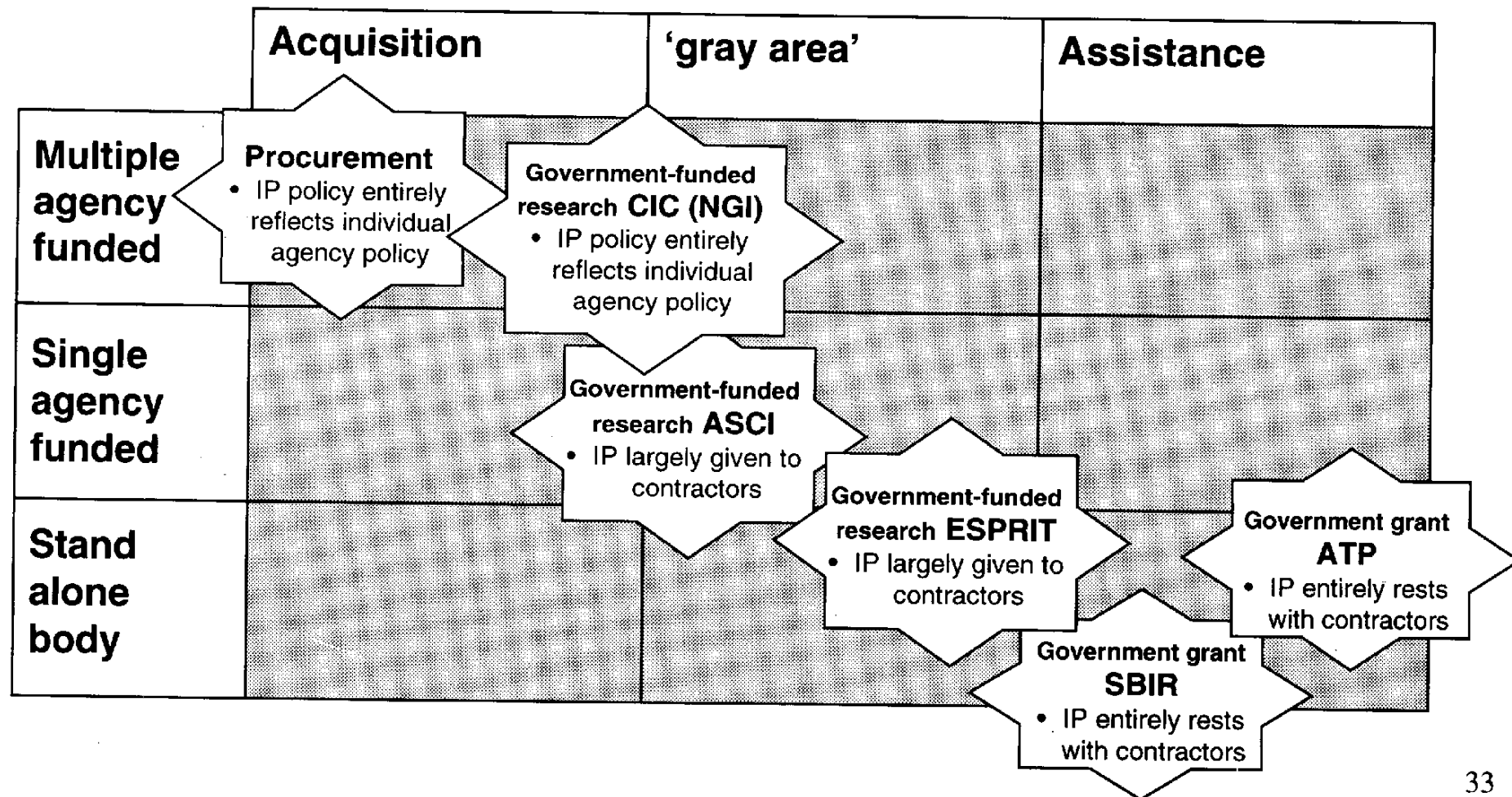
5. The fifth part of the document is a list of the recommendations that were made at the meeting. The recommendations are listed in alphabetical order.

第4章 資金提供メカニズムによる 知的財産権取り扱いのバリエーション

IP treatment Variation by funding mechanism

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The IP policies of specific funding instruments can be summarized by examining their funding source and contractual nature



1

Introduction and overview

2

IP legislation and policy background

3

IP practice variation by agency

4

IP treatment variation by funding mechanism

4-1

Government funded research

4-2

Procurement

4-3

Government grants

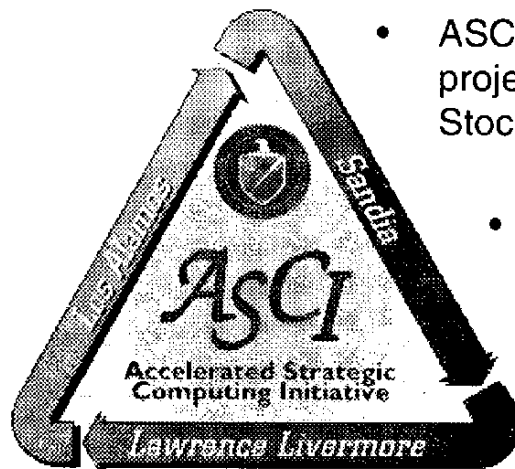
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Appendix: List of interview contacts

Funding mechanisms	4
Government funded research	4.1

Government-funded research projects vary greatly in terms of purpose, proximity to commercial application and concerned agencies

- The Accelerated Strategic Computing Initiative (ASCI) is a multi-year program to extend DOE's computational resources to support virtual testing and prototyping capabilities for nuclear weapons
- With a budget of about \$85m, the program is located within the DOE's Defense Programs (DP) laboratories



- ASCI is not an independent project, but part of DOE's Stockpile Stewardship Program
- ASCI's research is conducted by an alliance of the DOE's three largest labs - Los Alamos, Sandia and Lawrence Livermore

ASCI primary objectives

Performance	Create credible virtual tests to analyze the performance and predict the behavior of nuclear weapons
Safety	Predict the behavior of full weapons systems in complex accident scenarios
Reliability	Develop the ability to make predictions that will extend the lifetime of current weapons, predict failure mechanisms and reduce routine maintenance requirements
Renewal	Use virtual prototyping to reduce production and testing facilities for stockpile requalification and replacement

Funding mechanisms	4
Government funded research	4.1

The ASCI project's IP policy reflects its unusual mix of 'acquisition' and 'assistance' motives...

ACQUISITION

- The government needs to procure leading supercomputer technology to support defense and other key programs... it needs multi-teraflop computing power for its nuclear weapon stockpile simulations if nothing else.
- Thus, this program's policy is regulated broadly by the DOE's FAR, or DEARS, which generally aims to hold IP for the government's own use
- Federal agencies are thus 'first-in-line' on the customer list for any supercomputer technology, even if it has a broader commercial market.

ASSISTANCE

- In reality, this investment from the government is somewhat of a "subsidy" for research on a product with an insufficiently broad commercial market.
- Otherwise, domestic companies like SGI, IBM, Sun, and DEC would not develop this technology, and the US computer industry would fall further behind global competitors in this arena
- Equally, the fundamental motivation of the project is the use to which the supercomputer technology will be put, not the computer itself - and hence IP created in developing the computer is somewhat incidental

Funding mechanisms	4
Government funded research	4.1

...along with the practices of its sponsoring agency (DOE).

DOE POLICY

- Although generally speaking across government most commercial IP rights end up with the private sector, the DOE in particular aims to hold on to IP, partly through its 'acquisitive' nature, and partly because it is primarily engaged in basic research.
- While the DOE is probably not so concerned with 'sharing the wealth' via a commercial ownership stake (limited market potential, anyway), there is some residual spirit of 'we pay for it, we own it' -- at a bare minimum, the government will limit commercial sale of this strategic IP, via export restriction.

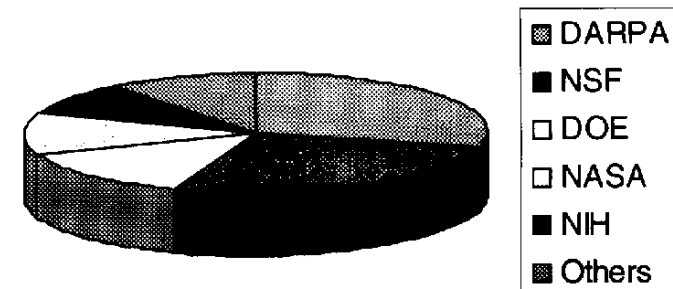
As a result there is some 'conflict of emotions' with regard to ASCI IP, and some variation results from case-by-case negotiation of each project with each company

Funding mechanisms	4
Government funded research	4.1

In contrast, the CIC project is an 'umbrella' project, with a high-level policy steering group, but with actual project funding and decision-making carried out by individual agencies; IP consequently reflects the policies of these individual agencies

- The Computing, Information, and Communications program is the outgrowth of an executive initiative for R&D investment in the national information infrastructure (NII)
- "The CIC R&D Committee is comprised of members of several agencies, and the issues with respect to IP are governed by statutes that apply to the agencies [themselves]." -- Jerry Linn, NIST
- The White House does not get directly involved in IP matters, leaving discretion to the agencies

FY 1998 CIC Budget by agency)



Funding mechanisms	4
Government funded research	4.1

The NGI project in particular is funded primarily by DOD, NSF and NASA, with DOE joining the leaders in FY99; as with its mother project, CIC, IP policies vary by sponsoring agency

The three stated goals of the NGI

- 1 'To conduct experimental research to develop advanced network technologies, with DARPA as the leading federal agency.'
- 2 'To implement a high-speed "network fabric" which will provide the means to test new technologies. This fabric will provide connectivity about 100 times faster than the current Internet to at least 100 universities and federal research sites.'
- 3 'To come up with "revolutionary applications," new ways of using the technologies that will emerge from the NGI research.'

"We must build the second generation of the Internet so that our leading universities and national laboratories can communicate in speeds 1,000 times faster than today, to develop new medical treatments, new sources of energy, new ways of working together."

President Clinton, 1997 State of the Union address

- The majority of the IP from NGI funded research will probably end up with the private sector, following typical DARPA policy
- Early versions of the NGI proposal met with some Congress criticism for 'corporate welfare', however, and so IP distribution will be monitored carefully

Funding mechanisms	4
Government funded research	4.1

Europe's ESPRIT project, while centrally distributing funds, employs a unique model of involving multiple commercial partners, who are then fully free to share the fruits of their labors

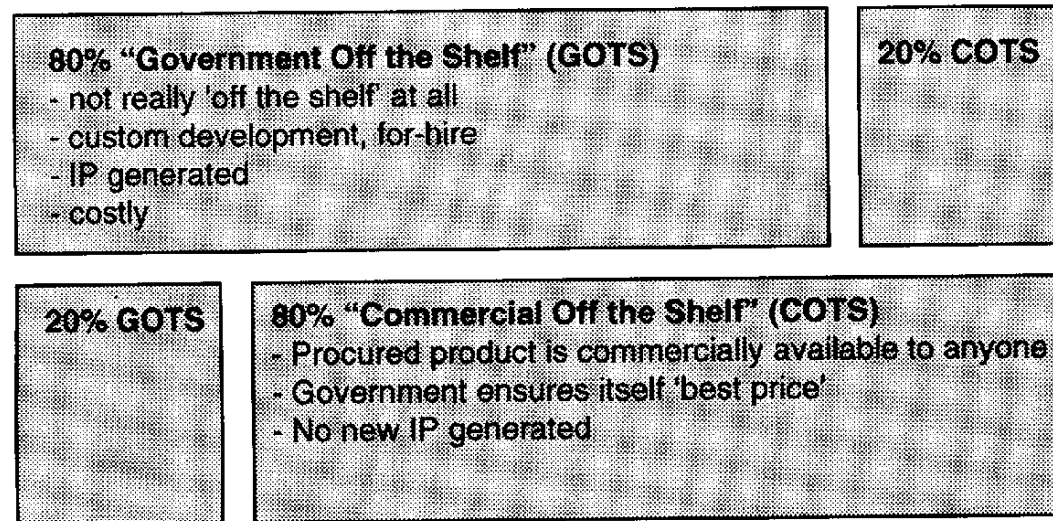
- A standard ESPRIT contract defines rules for IP ownership and key terms (e.g., “foreground” and “background” IP, “exploitation” and access rights, “full” and “associate partners”, licensees, confidentiality)
- While not seeking its own IP, the EU is fairly aggressive about insisting that Access Rights be granted (including those for Exploitation) to multiple parties - in other words more than a single contracting partner
- However, the EU is fairly hands-off about specific IP negotiation terms (for which there is plenty of leeway) between the various parties in an ESPRIT effort. The parties negotiate up-front, as part of the proposal, the specific details of the deal: exploitation plans, royalties, limitations on the sharing of background IP, etc.
 - So long as the fundamental principles of ESPRIT are not violated, the EU actively encourages this ‘bartering’
 - Historically, these matters have, in the opinion of some (U.K. Department of Trade and Industry), received inadequate or ‘belated’ attention from the parties involved, but this is improving as participants learn
 - In the absence of legislation or adjudication, participants are increasingly spelling things out

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For general procurement of goods the government needs for its own use, there is a general trend toward acquisition of off-the-shelf solutions that, by definition, do not generate IP

- Adopted as a general cost-saving measure, there is a strong trend in government procurement away from products which need to be specially made (note that this is distinct from research and development)

DOD Software Acquisition, Then and Now



1992

1998

- Instead, the government is trying to move more towards buying products which have already emerged in the commercial marketplace
- In this situation, by definition, IP remains in the commercial sector - but no new IP is actually generated as a result of the contract

Source: DOD

In situations where IP is generated, IP policy is regulated by the FAR and agency implementations of the FAR

- According to the government's own distinction, all procurement is contractually arranged as 'acquisition' (in contrast with research and development, some of which is contractually defined as acquisition, some as assistance, and some as cooperative development - see page 8 for more details)
- All acquisition contracts are regulated by the FAR, or agency-specific implementations of the FAR (see pages 18 and 20 for more details)
- Thus when IP is generated, the treatment of that IP varies according to the nature and policy of the agency procuring the goods or services

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Government grants

Funding mechanisms	4
Government grants	4.3

Federal R&D dollars spent as “assistance” are treated very differently from those spent in the spirit of “acquisition”--not surprisingly, the former is more generous in giving away IP:

‘Acquisition’: reasonably prescribed, follows agencies

- Federal agency agenda is the driver
- All procurement and some R&D
- Primary purpose: ‘to acquire property or services for the direct benefit or use of the US Government’

‘Assistance’: more flexible, giving more IP away

- Recipient agendas are more in the driver’s seat
- Grants:
 - Overseen by OMB Circular A-110 and by individual agency guidelines (e.g., NSF Grant Proposal Guide)
 - Largely intended for non-profits or universities (not business)
- Cooperative Agreements
 - Tech Transfer Act created and expanded CRADA vehicle
 - Terms tend to be flexible. For instance, can be adapted to meet participating companies’ guidelines
- Federal agencies fund the research: ‘to carry out a public purpose of support or stimulation authorized by a law of the US’

Clearly acquisition ...

Goods or services for the direct benefit of the federal government

Gray area ...

Not necessarily for the eventual benefit of the government, and can be treated contractually as acquisition or assistance

Clearly assistance ...

Monies provided explicitly for the purpose of helping a non-government organization

Government grants - SBIR

Funding mechanisms	4
Government grants	4.3

The SBIR, governed by its own policy directive, is very squarely a grant program

- The SBIR program was created by the Small Business Innovation Development Act of 1982 and reauthorized until the year 2000 by the Small Business Research and Development Enhancement Act of 1992
- Federal agencies with extramural R&D budgets over \$100 million were required to establish an SBIR program using a set-aside of a stated percentage of that budget (initially 0.2% in 1983, growing to 1.25% in 1986-1992, 1.5% in 1993 and 1994 and reaching a maximum of 2.5% in FY 1997)
- The mission of the SBIR program is to encourage / stimulate small businesses to develop and commercialize innovative technologies
 - This is clearly “assistance”, not “acquisition”
 - Government objectives are to stimulate commercial growth of the small business sector
- The Small Business Administration (SBA) is responsible for setting general policy guidelines, as well as coordinating and monitoring the progress of the SBIR Program

IP generated under grants from the SBIR remains with the private sector

- SBIR is a grant program, where IP rights are bestowed entirely to the private sector awardees
 - While the government can screen and impose its standards in the grant-making process (who to fund), once the dollars are allocated the IP belongs to the recipient
 - The money is relatively “no strings”
- Grants under SBIR fall into two categories
 - Phase I grants (up to \$75K) allow companies to explore the feasibility of innovative concepts
 - Phase II grants (up to \$750K) are selectively doled out to commercially promising Phase I recipients
- Anecdotal evidence suggests:
 - That SBIR follows a streamlined process and has less bureaucracy than other programs... money ‘comes easy’ with ‘no strings attached’
 - As a result, the quality of outputs from SBIR projects can be disconcertingly low - projects that wouldn’t normally make it past the government R&D hurdle receive funding under SBIR

Government grants - ATP

Funding mechanisms	4
Government grants	4.3

The ATP, established by its own body of (NIST) law, is a unique program in many ways

- The ATP, established in 1990, has requested a budget of \$260m for 1999
- The program has already created several commercial successes
 - for example: Aesthetic Solutions, a Palo Alto start-up which received an award in 1995 to develop 3D virtual reality software components, has found markets for its product and looks on course for a 1999 IPO
- The ATP is wholly operated by NIST (part of the DOC), and regulated by a policy statement contained in the DOC's charter

Unusual aspects of the ATP

- The goal of the ATP is economic growth and industrial gain
- The ATP does not fund product development - it funds new 'might-be-possible' technologies
- ATP projects are selected competitively on the basis of
 - economic benefit to the nation
 - commercialization plan
- All ATP project costs must be shared equally by industry (the government provides money but does not perform any of the work)

Government grants - ATP

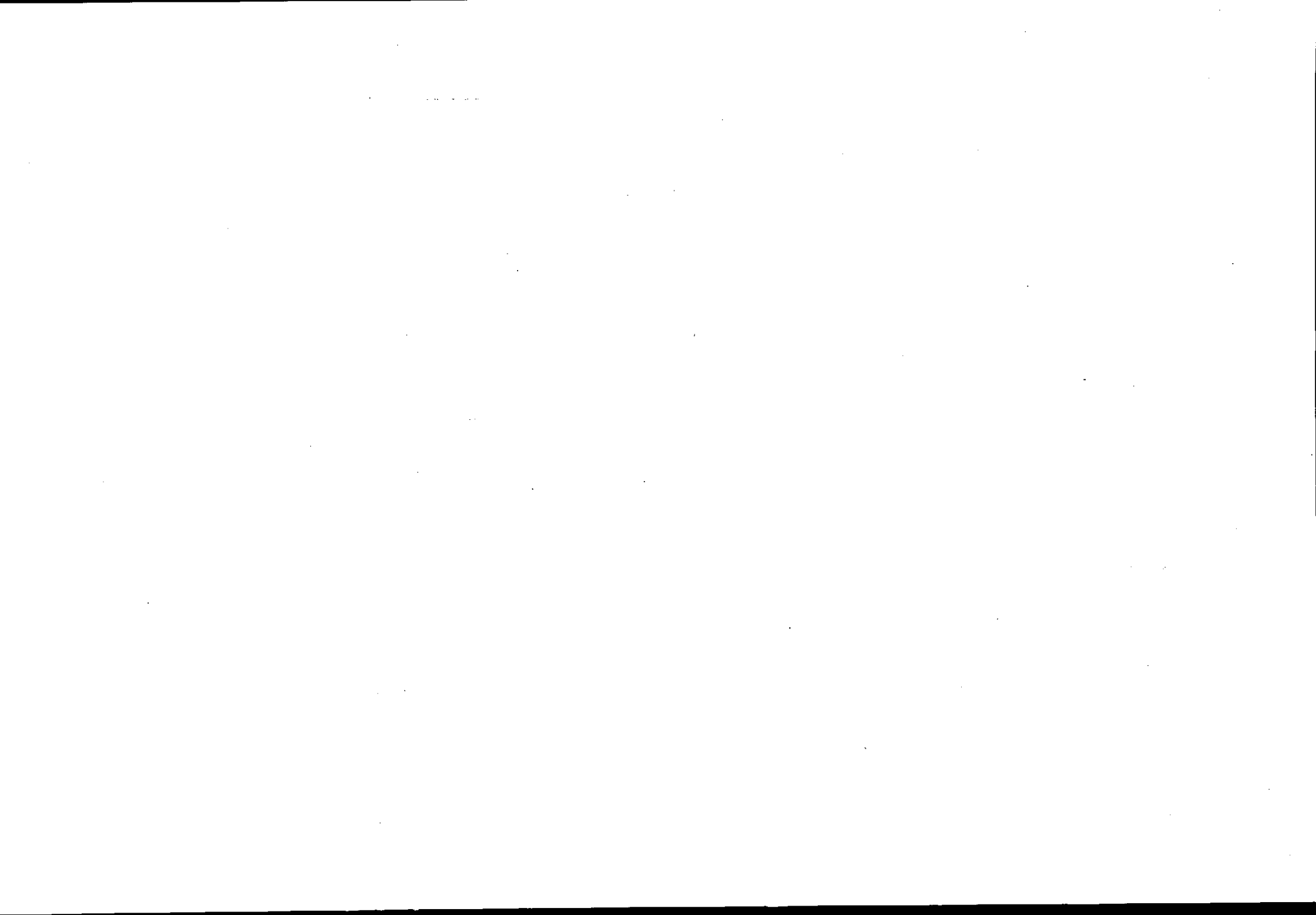
Funding mechanisms	4
Government grants	4.3

While structured as 'cooperative agreements', ATP projects fundamentally give IP to the private sector

- IP developed under ATP programs rests squarely with the private sector; this is consistent with the ATP's mission of stimulating industry via R&D assistance in high-risk, high potential payoff enabling technologies
- By program definition, recipients must be (or include) for-profit entities who can patent their work--government has no intentions, a priori, on keeping the IP
- Single company grants appear to be the most common (because of the ease of commercialization); Joint ventures are welcomed in principle but lead to a much more complicated grant-approval and negotiation process; in these cases, IP is a key issue that can stall the contracting procedure
- Patents resulting from ATP awards must be vested in a company or companies incorporated in the United States
- Unless an organization participating in an ATP project is a for-profit company, it cannot retain title to patents resulting from ATP-sponsored R&D although such an organization can receive mutually agreeable payments (either one-time, or continuing) from the company or companies holding title to the patent
- Although IP rests with grantees, the government makes the provision that it can seize the IP if the private firm fails to commercialize ('march-in rights')

Sources: Mike Rubin, NIST; Jerry Linn, NIST; ATP Web Site; Ben Golub, VeriSign





付属資料：インタビュー者のリスト

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Appendix A - Interviewee list

Lee Burrows, CalTech PhD Researcher

J Chester, NSF

Consultant to the ESPRIT program, works for UK Dept of Trade and Industry

Individual from the ESPRIT program

Jon Foster, Former White House Office of Technology

Ben Golub, VeriSign. Former applicant for ATP funds

Dave Herr, ASCI PathForward Liaison

Jeanne Hudson, NSF lawyer

Brian Kahin, NII-oriented lawyer/consultant, White House OSTP

Colin Lau, LLNL Contracting lawyer

Mark Liebman, Vividata (software company, sells to government)

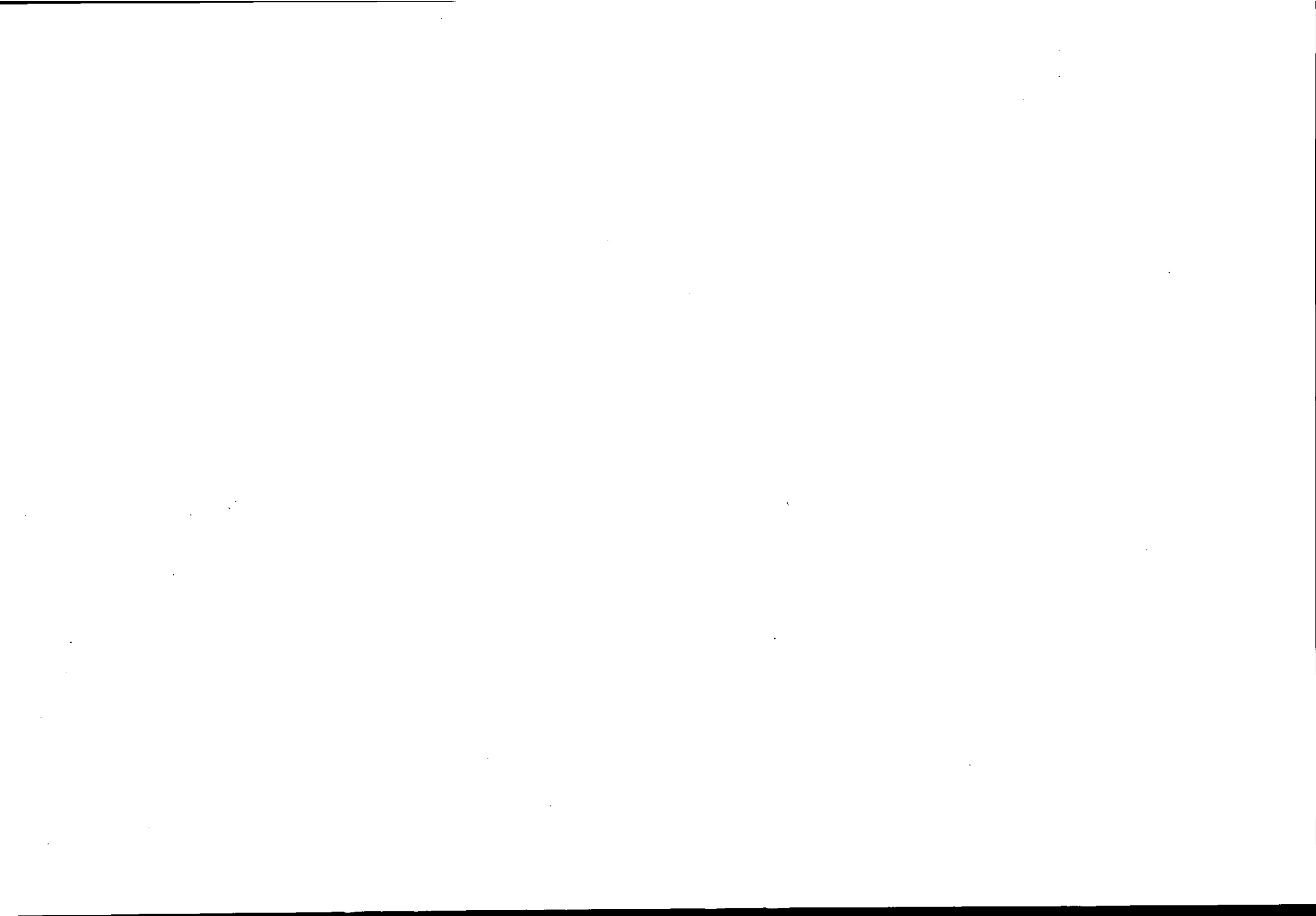
Jerry Linn, Information Technology Laboratory, NIST

Martha Livingston, White House, OSTP

Michael Rubin, Deputy Chief Counsel, NIST

Stephen Squires, DARPA Contracting, sat on CIC Committee

Jeff Weiner, Manager of contracting, Lawrence Berkeley



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© 平成11年3月発行

発行所 財団法人 日本情報処理開発協会

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