28 April 1992

NORWAY - PROCUREMENT OF TOLL COLLECTION EQUIPMENT FOR THE CITY OF TRONDHEIM

Report of the Panel adopted by the Committee on Governement Procurement on 13 May 1992 (GPR.DS2/R)

I. INTRODUCTION

1.1 In document GPR/W/106 of 11 June 1991 the United States informed the Committee on Government Procurement ("the Committee") that bilateral consultations had been held with Norway under Article VII:4 of the Agreement on Government Procurement ("the Agreement") on the procurement by Norway of an electronic toll collection system for the city of Trondheim. Since these consultations had not produced a mutually satisfactory solution, the United States requested a meeting of the Committee pursuant to Article VII:6 of the Agreement. This meeting was held on 20 June 1991 (GPR/M/40, paragraphs 2-24). In document GPR/W/108 of 11 September 1991, the United States informed the Committee that no progress had been made towards a mutually satisfactory solution and requested a meeting of the Committee. In document GPR/W/110 of 20 September 1991, the United States requested the establishment of a panel pursuant to Article VII:7 of the Agreement and set out the complaint that it would like the Panel to address. The Panel was established by the Committee at a meeting held on 23 September 1991 (GPR/M/42, paragraphs 2-3).

1.2 On 25 October 1991, the Chairman of the Committee informed the Committee that the Panel would have the following composition and terms of reference (GPR/62):

Composition

Chairman:	Mr. Peter Williams
Members:	Mr. Alexander Karrer
	Mr. Roy Kilvert

Terms of Reference

"To examine, in the light of the relevant provisions of this Agreement, the matter referred to the Committee by the United States in document GPR/W/110; to consult regularly with the parties to the dispute and give full opportunity for them to develop a mutually satisfactory solution; and to make a statement concerning the facts of the matter as they relate to the application of this Agreement and to make such findings as will assist the Committee in making recommendations or giving rulings on the matter."

1.3 The matter referred to the Committee by the United States was described in document GPR/W/110 as follows:

"Pursuant to the provisions of paragraph 7 of Article VII of the Agreement on Government Procurement, the United States requests the establishment of a panel to examine a procurement conducted by the Government of Norway for electronic toll collection equipment for the city of Trondheim.

In conducting this procurement, the Government of Norway has single tendered the equipment from a Norwegian supplier, excluding viable and eager competition from a capable United States supplier. The United States considers this Norwegian action to be inconsistent with Norway's obligations under this Agreement, particularly the obligations of Article II concerning national treatment and non-discrimination. The United States also maintains that the Government of Norway's actions in this matter cannot be justified under the terms of Article V:16(e) of the Agreement, or any other provision of the Agreement.

The United States further considers Norway's action in this matter nullifies and impairs benefits accruing to the United States under the Agreement.

The United States notes that the two parties had a similar dispute in 1990 regarding the procurement by Norway of similar equipment for the city of Oslo. That matter was settled bilaterally, and under the terms of that settlement Norway agreed, among other things, that future procurements of this type of equipment would be carried out 'in accordance with the provisions of the Agreement on Government Procurement'. The United States considers that Norway's actions in the current matter are not 'in accordance with the provisions of the Agreement on Government Procurement'."

1.4 The Panel met with the parties to the dispute on 9 December 1991, 22 January 1992 and 21 February 1992. The third meeting was held primarily to ensure that a full opportunity had been provided for views to be put forward on the issue of the Agreement's provisions on technical specifications, which was only raised after the initial submission of the United States. The Panel's report was submitted to the parties on 6 April 1992.

II. FACTUAL ASPECTS

2.1 In March 1991, the Norwegian Public Roads Administration announced that the toll ring planned for the city in Trondheim would be based on an electronic and mainly unmanned toll collection system, forming part of an integrated payment system for the city, and that a contract had been concluded with a Norwegian company, Micro Design A.S. (Micro Design), relating to parts of this system (referred to hereinafter as "the contract"). This contract was characterised as a "research and development" contract. The Public Roads Administration also announced that Trondheim had been designated as a national test area for Advanced Transport Telematics (ATT).

2.2 The contract with Micro Design, which is the subject of the present dispute, was in three parts:

(i) The design of a toll system involving unmanned toll stations, the possibility of payment in municipal car parks, priority for public transport, low investment and operating costs, miniaturisation of hardware, use of an ISDN network (Integrated Services Digital Network), and compatibility with existing and future payment systems and with future European/international standards. This part was referred to in the contract as "research and development services".

(ii) The supply of ten toll stations for unmanned operation, an ISDN server, two control units for integration of the toll ring and car park fees, and one bus priority unit. These pieces of equipment were referred to in the contract as "prototypes".

(iii) The supply of some 60,000 tags to be fitted in individual vehicles to enable them to be electronically identified at toll stations.

The contract foresaw a total budget of 28.5 million Norwegian Kronor (NOK). Of this NOK 14.3 million was allocated for (i) above, NOK 8.7 million for (ii) above, and NOK 5.5 million for (iii) above. An unofficial translation provided by Norway of the paragraphs of the contract which describe its contents, including its provisions concerning the disposition of proprietary rights, can be found at the Annex to this report.

2.3 The toll collection system was required to be ready for preliminary toll collection operations on 14 October 1991, with the whole project including testing to be completed by 14 April 1994. Estimated revenue collection after entry into operation was nearly NOK 2 million per week or NOK 96 million per annum.

2.4 The contract forms part of the Trondheim toll ring project, which had an estimated value of NOK 47.5 million. Responsibilities for the implementation of the parts of the project not covered by the contract with Micro Design were divided as follows:

- The Norwegian Public Roads Administration was itself responsible for the functional requirements for the toll ring project, installation of the toll ring system, engineering and project management;

- Trondheim Telecom was responsible for the installation and trial testing of the ISDN, internal education and equipment for temporary solutions;

- The Trondheim Toll Collection Company was responsible for developing computer programs for administrative routines.

2.5 No tender notice was issued for the contract that was awarded to Micro Design and no tenders or offers were invited from companies other than Micro Design.

2.6 The issue concerning a previous procurement of toll collection equipment, for the city of Oslo, raised in the document containing the complaint of the United States and referred to in the terms of reference of the Panel, was discussed in the Committee on Government Procurement in 1990 (GPR/M/35, paras 2-12; GPR/M/36, paras 25-41; GPR/W/103 and addenda). This matter was mutually satisfactorily resolved between the United States and Norway on the basis of an exchange of letters.

III. MAIN ARGUMENTS

Summary

3.1 The United States argued that the whole procurement fell under the Agreement since it was for a product: a toll collection system. In the United States view, Norway had failed in conducting the procurement to meet its obligations under the Agreement in the following respects:

(i) The single tendering of the procurement could not be justified under any of the provisions of Article V:16 which permit single tendering, including Article V:16(e). It was not consistent with sub-paragraph (e) because: (a) this provision only covered prototypes or a first product developed in the course of, and for, a particular contract whose objective was research and development, and did not apply to contracts for which the supplier would have to conduct research and development in order to deliver the product sought by the procuring entity; (b) the so-called "prototypes" in the contract were not prototypes but the final product; and (c) the contract did not require the performance of genuine research and development on the part of the supplier in order to be fulfilled.

(ii) Norway had also failed to meet the general requirement of Article II:1 that the products and suppliers of other Parties be accorded "treatment no less favourable" than "that accorded to domestic products and suppliers".

(iii) Norway had permitted Micro Design to assist in designing specifications for the project in a manner inconsistent with the provisions of Article IV:4 of the Agreement. Further, by specifying for the project the proprietary equipment of Micro Design, Norway had acted inconsistently with the provision of Article IV:2(a) of the Agreement.

3.2 On the above grounds, the United States requested the Panel to find that Norway had violated its obligations under the Agreement in the conduct of the procurement of toll collection equipment for the city of Trondheim and to recommend that Norway take the necessary measures to bring its practices into compliance with the Agreement with regard to this procurement. The United States further requested the Panel to recommend that Norway negotiate a mutually satisfactory solution with the United States that took into account the lost opportunities in the procurement of United States companies, including Amtech, a company which had been willing and eager to bid for the contract.

3.3 In the Norwegian view, the only part of the procurement that was covered by the Agreement was the part concerning the procurement of prototypes. The remainder was for research and development, a service, which was not covered by the Agreement. In regard to the procurement of the prototypes, Norway argued that:

(i) The conditions of Article V:16(e) of the Agreement were fully satisfied. The procurement pertained to prototypes, the procurement of the prototypes has been for the particular research and development contract to develop the new toll ring system for Trondheim, and the procurement had taken place in the course of, and for, that research and development contract. Furthermore, Norway had complied with the requirements in the headnote.

(ii) In conducting the procurement, Norway had respected the provisions of Article II:1.

(iii) The procurement had been based on general functional requirements and not on technical specifications. The requirements of Article IV:2 were therefore not applicable. Moreover, since the procuring entity had not received advice from Micro Design on the preparation of technical specifications, Norway had not acted inconsistently with Article IV:4.

3.4 Norway requested the Panel to reject the United States' complaints as unfounded and find that Norway had not violated its obligations under the Agreement in its conduct of the procurement of prototypes for the Trondheim toll ring project. Norway also requested the Panel to reject the United States' suggestion that the Panel recommend that Norway negotiate a mutually satisfactory solution with the United States that took into account the lost opportunities of United States' companies, including Amtech, in the Trondheim procurement, both because Norway has acted consistently with its obligations under the Agreement and because such a recommendation would not fall within the mandate of the Panel.

Detailed Arguments

3.5 The following outlines the main points made on each of the arguments referred to above.

(i) Extent to which the Agreement Covers the Procurement

3.6 The United States argued that, since in its view the procurement was for products and not for research and development, and the contract value exceeded the threshold, the totality of the procurement fell within the scope of the Agreement pursuant to the provisions of Article I. Whether or not the supplier awarded the contract had to create new equipment incorporating and integrating new technologies was not relevant to a determination of coverage by the Agreement.

3.7 Norway argued that, since research and development was not a product and the contract was for research and development, only the part of the procurement concerning prototypes was covered by the Agreement, given the provisions of Article V:16(e). Norway also stated that the budget provided for in the contract allocated slightly more than 50 per cent of the amount to the research and development component of the contract.

(ii) Article V:16(e), including its Headnote

3.8 The United States argued that, since paragraph 16 of Article V constituted an exceptions provision, the burden of proof lay with Norway to demonstrate that it had acted consistently with its requirements. The United States also maintained that, as an exceptions provision, Article V:16(e) had to be construed narrowly.

3.9 The United States argued that the contract was not to procure research and development. In the procurement under consideration, the Norwegian Public Roads Administration had not had as its principal purpose the procurement of research and development, i.e. the purchase of the results of such research and development; rather, it had had as its principal purpose the procurement of a functioning toll collection system or at least the largest part of such a system, i.e. products. Norway had not identified what research and development, as opposed to products, the Norwegian Public Roads Administration had been procuring from Micro Design. For this reason, Norway would not have met the requirements of sub-paragraph (e) of Article V:16, even if the products in question had been prototypes and research and development had been required in order to produce them. In the United States view, the fact that the enterprise, Micro Design, had retained possession of the proprietary rights over the knowledge generated by the research and development seemed to contradict the contention that it was research and development as such that was being procured. If Article V:16(e) were interpreted so that the mere fact that a product being procured required some preliminary development by the producer meant that it could be single tendered, Parties to the Agreement would be able effectively to exclude from the coverage of the Agreement any procurement of an innovative product incorporating new technologies.

3.10 In response, Norway said Article V:16(e) did not require that the principal purpose of the contract be acquisition of research and development results. The provision did not refer to the results of research and development or to intellectual property. It was sufficient that the basic task assigned under the contract be the conduct of research and/or development. This interpretation was supported by the wording of the footnote to Article V:16(e). On the issue of the proprietary rights, Norway maintained that a procuring entity would be under no obligation in terms of Article V:16(e) to retain ownership of the proprietary rights in the results of the research and development. This was a matter on which the Agreement was silent and which was therefore left to be decided in accordance with each country's internal regulations. The disposition of the proprietary rights in the Trondheim contract was drafted along standard lines for Norwegian research and development contracts. Moreover, there had been no particular reason for the Public Roads Administration to secure full proprietary rights: what it had needed from the contract was not the research and development results concerning payment electronics, video surveillance and ISDN as such, but, with regard to the matter before the Panel, prototypes as part of an entire integrated payment system, an operational toll ring and a European test area for such technology. Since it was sufficient for the Public Roads Administration to retain the right to use free of charge the systems and software developed under the research and development project in question as well as in the event of future contracts for corresponding systems, there was no reason to deviate from general Norwegian regulations on this point.

3.11 The United States also contended that the products procured were not prototypes but a final product. It maintained that the procurement had not been for the purchase of prototypes but rather for that of a complex and sophisticated final product. The contract entailed the quantity production of 12 toll stations and some 60,000 identification tags sufficient for the needs of the final toll system. It did not call for a small-scale test model, but a full-scale operational toll system for one of Norway's major urban areas. Sub-paragraph (e) of Article V:16 did not apply to the procurement of final products, and, as the footnote to it made clear, did not "extend to quantity production to establish commercial viability or to recover research and development costs".

3.12 In response, Norway said that the contract was for prototypes and did not extend to quantity production to establish commercial viability or to recover research and development costs. Norway drew attention to the fact that Article V:16(e) referred to prototypes in the plural and further indicated in the footnote that it covered "limited production in order to incorporate the results of field testing and to demonstrate that the product is suitable for production in quantity to acceptable quality standards". In the contract, what had been procured was the development of an integrated and comprehensive toll ring system; some aspects of it could not have been implemented or tested except as part of a fully operational system. Not only could the testing not have been undertaken by a test model but also such a test-model phase would have unacceptably delayed implementation of the project and thus the collection of revenue. A fully operational system was also necessary for the Trondheim system to meet its goals of constituting a national test area for advanced transport telematics as well as a European test area for integrated payment and automatic debiting as part of the European standardisation and DRIVE II programmes.

3.13 In regard to the tags for electronic vehicle identification, Norway said that these were not included in the procurement of prototypes. However, the tags were technologically inseparable from the readers, whose miniaturisation and integration in roadside cabinets was part of the research and development contract. Micro Design had provided the main component for these tags from the supplier which had made the most competitive bid (SAW-TEK, based in Florida, USA).

3.14 The United States further contended that research and development was not required in order to meet the terms of the procurement. It maintained that Norway had shown no evidence that true research and development was involved at all in the Trondheim procurement. In the United States view, equipment already existing at the time of the conclusion of the contract would have been fully capable of meeting the project's requirements. These apparently consisted of normal systems integration work of various known and available technologies and products of several manufacturers, such as video cameras, automatic vehicle identification equipment, software, data communications etc. All the functions to be performed by the toll stations were accomplished routinely in many settings using commercially available technology, including registration and validation of electronic payments, payment in self-service automats, digital video recording, compression and reduction of video images, video surveillance, voice transfers and self-check and remote enforcement of operations. While there was always some software or hardware customisation work in procurements of this type, such routine work could not be characterised as research and development. Any toll collection system, as indeed any product involving high technology, would require some customisation work to adapt it to the particular environment in which it would operate and the specific functions that it was intended to fulfil; this did not mean that all such procurements could be single tendered. State-of-the-art automatic vehicle identification and electronic toll collection systems were commercially and competitively available and were being routinely procured by governments. A recent example had been the purchase of a turnpike toll collection system by the State of Oklahoma from the United States company, Amtech.

3.15 The United States also argued that the fact that the period between conclusion of the contract in March 1991 and making the system operational in October 1991 was no more than seven months indicated that genuine research and development had not been called for.

3.16 Norway argued that considerable development and some applied research had been, and was still being, required under the contract, and provided the Panel with considerable information with a view to substantiating this argument. Because of the small traffic base in the Trondheim area and high Norwegian salaries, a largely unmanned toll system (10 out of 12 toll stations) was called for. N° such largely unmanned toll ring had been implemented before and the technology to do so was not available on the market. Other specific requirements of the Trondheim project, such as a highly differentiated fee structure (including time-differentiated fees, payment once per hour, maximum payments per month and free parking in city carparks after passage through the toll ring), and the need to reduce operational and investment costs compared to previous toll systems as well as to minimise the environmental impact also required new technological solutions.

3.17 Norway maintained that the United States had presented no evidence substantiating the United States' allegation that the Trondheim procurement was a matter of customisation and putting together commercially available technologies. The planning of the Trondheim toll ring had been initially based on the assumption that existing technical solutions would be sufficient to cover the project requirements in Trondheim. As part of the project preparations, a study had also been undertaken of solutions based on commercially available technologies in other fields. None of the commercially available solutions or technologies had, however, been found to be applicable to Trondheim. Norway furthermore maintained that the United States had provided no information demonstrating that the technical solutions for the turnpike toll collection system procured by the State of Oklahoma were applicable also to Trondheim, as the United States had implied. The Public Roads Administration had regarded in particular the enforcement system and communications solutions for the Oklahoma project as being inapplicable to Trondheim.

3.18 What had made a largely unmanned system feasible was the decision to employ a novel application of ISDN (Integrated Services Digital Network) telecommunications technology, which permits simultaneous transmission of data, speech and images using a single telephone line between the toll stations and the toll collection company offices. This had made the following features of the Trondheim unmanned stations possible at an acceptable cost: remote assistance to motorists having problems in using the service; automats for manual payments; automatic processing and transmission of video images for enforcement purposes; and real-time video surveillance and advanced monitoring of stations. Toll collection systems using ISDN had not been developed when the Trondheim project had been in the planning stage. Accordingly, Micro Design had had to develop, in co-operation with Trondheim Telecom, new products to meet the needs of the Trondheim toll system. For example, extensive development work, which was still on-going, had been necessary in the area of advanced image processing, notably the compression of video images to one-tenth of normal size before transfer to the central computer for processing. The Trondheim project was one of the main pilot projects of Norwegian Telecom in preparation for the commercial introduction of ISDN in Norway in 1993 and was one of the national test areas for the commercial applications of ISDN technology. The use of ISDN technology in the Trondheim system was the most advanced application of ISDN in Norway and, in the Norwegian view, was at the forefront of the application of ISDN technology internationally. In addition to the development of these above functions and of their interface with the ISDN network, the contract required their integration into one miniaturised computer system at each toll station. The contract also required the miniaturisation of the otherwise standard units for the automatic reading of vehicle tags so that they, together with the computer, could fit into a specially developed climate-controlled cabinet at each unmanned station. All this had not been available on the market nor could it have been obtained by customising known products.

3.19 In response to United States contentions concerning the short delay between conclusion of the contract and initial operation of the system, Norway said that it should be kept in mind that this period of seven months was not the time required to complete the research and development for the toll ring system. Research and development work under the contract was still going on, for example on the ISDN solutions and providing for inter-operability between toll payment and city car parks. Moreover, a great deal of testing and systems development remained to be carried out. The research and development contract was not due to be completed until 14 April 1994.

3.20 The United States then turned to the headnote to Article V:16(e). The United States argued that, even if Norway had met the requirements of sub-paragraph (e) of Article V:16, it would not be covered by the exception in Article V:16 because it had failed to comply with the requirements of the headnote to that provision which required that single tendering must not be used with a view to avoiding maximum possible competition or in a manner which would constitute a means of protection to domestic producers. In conducting the procurement, the Norwegian Public Roads Administration had made no effort to consider other possible suppliers than Micro Design. In particular, it had not contacted a United States

company, Amtech, which was a known and eager supplier. Amtech had been known to the Norwegian authorities as a world leader in providing equipment of the type required by the Trondheim toll ring. In the exchange of letters between the United States and Norway following the previous procurement of a toll collection system by Norway for the city of Oslo, Norway had recognised that Amtech's technology had been found to be "proven, reliable, competitive, type approved by the PTT and commercially available" as well as able to "satisfy the requirements set up for the Oslo Toll Ring Project". Amtech's interest in bidding for the Trondheim project had been emphasised repeatedly by United States Government officials in numerous communications between November 1990, when Amtech had learned that Norway intended to sole source the procurement from Micro Design, and 13 March 1991, the date the award of the contract had been officially announced. Despite these indications of interest, Norway had neither provided information on the procurement to United States officials nor provided Amtech an opportunity to present what it had to offer. Because it had ignored known and eager competitors and had done everything possible to avoid maximum possible competition, Norway had no legitimate basis for its conclusion that Micro Design had been best qualified to supply the requested product.

3.21 The United States contended that the Norwegian procurement of a toll ring system for Oslo confirmed that Norway's behaviour in the Trondheim case was part of a consistent Norwegian policy to use its government procurement system to support a national supplier of electronic toll systems so as to increase its ability to compete on the European and world markets. In the Oslo case, the procurement had been first awarded to Amtech, but the decision had been subsequently reversed by the Norwegian governmental authorities at the political level, reportedly for industrial policy reasons. In this connection, the United States referred to a letter from the Norwegian Ministry of Transport and Communications to the procuring entity in the Oslo case which stated:

> "As recognised, the Ministry of Transportation has for a long time stressed the political importance in connection with the choice of payment systems for the toll road ….
>
> The choice of [Micro Design] creates great possibilities for Norwegian high technology production within the EC area. The Ministry of Industry has estimated the international market potential in the area of 10-20 billion NOK over a five-year period".

The United States stated that it had not raised the Oslo procurement in order to debate the specifics of that situation, although it did not accept the Norwegian Government's characterisation of the Oslo procurement process. Rather, the United States maintained that the Oslo case was important in demonstrating Norway's intent with respect to the Trondheim procurement.

3.22 Norway maintained that, since the Norwegian Public Roads Administration had acted in accordance with objective criteria in according the contract to Micro Design, Norway had not granted protection to a domestic supplier or domestic products and had not used single tendering so as to avoid maximising competition. Micro Design had been, in the opinion of the Public Roads Administration, the company best qualified to perform the contract. The award of a research and development contract to Micro Design had been considered the most speedy and cost-effective way of implementing the project. Furthermore, Micro Design, together with Trondheim Telecom, had put forward broad ideas for the technological concepts on which the final toll ring solutions had been based. The Agreement contained no requirement for some sort of pre-market solicitation before single tendering, as the United States appeared to be suggesting, nor did the Agreement forbid the use of single tendering in a way that excluded a known and eager competitor. If the United States interpretation were to be accepted, the regime under Article V:16 would be closer to that of ordinary tendering procedures than to that of single tendering.

3.23 Norway rejected the United States' depiction of the Norwegian authorities as having used the government procurement system to support a national supplier of electronic toll systems to give it a competitive edge. The Norwegian Public Roads Administration had been in a position to judge the respective suitability of Micro Design and Amtech for the research and development contract because of its experience with the Oslo procurement and because it had kept itself abreast of developments in electronic toll collection systems and of the projects under way. One of the challenges in Trondheim had been to integrate a highly advanced digital video control system with the payment system, and to develop alarms, automatic check routines, monitoring and possibilities for remote servicing of motorists. The Norwegian Public Roads Administration had not regarded Amtech as possessing any advantages in this field as compared to Micro Design. In the Oslo procurement, EB Lehmkuhl/Amtech had only bid for one of the four computer systems required to operate each toll plaza. EB/Amtech had submitted no bid for the digital video enforcement system. In the Trondheim system, video images constituted 95 per cent of the total data handled. Norway's recognition of Amtech's technological and other capabilities in the exchange of letters quoted by the United States had only extended to the field of electronic identification equipment for the Oslo procurement. The procuring entity had not regarded Amtech as being particularly qualified as a supplier of video enforcement systems.

3.24 Norway took issue with the United States' characterisation of the Oslo toll system procurement and of its relevance to the present case. In the Oslo procurement a local entity, based on its recommendation to the central authority, had issued a letter of intent to EB Lehmkuhl (with Amtech as a sub-contractor) for the electronic identification parts of the contract. However, the central authority, which by statute approves or rejects the local entity's proposal in such cases, had at that time not yet made a final decision in the matter and had not been consulted by the local entity. The central authority had had a different opinion than the local entity regarding the technical and economic assessment of the bids made by EB Lehmkuhl/Amtech and Siemens/Micro Design. Accordingly, the Public Roads Administration had found itself obliged to withdraw the letter of intent. New bids had then been invited from the two leading contenders and a fresh evaluation made. It had been at the time, and it still was, the opinion of the Norwegian authorities that the procurement of equipment for the Oslo toll ring had been handled in a manner consistent with Norway's obligations under the Agreement. It had been, however, recognised by Norway as unfortunate that the local entity had acted outside its competence, by making unauthorised decisions and informing one of the companies involved in the Oslo toll ring procurement process of such decisions. Norway had recognised in the exchange of letters that this could be considered an irregularity in the procurement process incurring costs for the company concerned in developing an offer for the Oslo toll ring project. The company had been, accordingly, compensated financially for this unfortunate event, as referred to in the exchange of letters. Nothing in the evaluation of the offers for the Oslo project had indicated that Amtech's system was in any way superior to that of Micro Design or better suited to meet the project's requirements. In addition, Micro Design's bid had been 7 per cent lower in price. In any event, in the Norwegian view the Oslo procurement fell outside the scope of the Panel's terms of reference and was of no relevance to the case in hand, which was quite separate and different.

(iii) Article II:1

3.25 The United States contended that, for the same reasons that Norway had failed to meet the provisions of the headnote to Article V:16, it had also not met the general obligation in Article II:1 not to accord less favourable treatment to the products and suppliers of other Parties than to national products and suppliers.

3.26 Norway agreed with the United States that Article II was applicable to the Trondheim procurement, in as far as the prototypes were concerned. Norway maintained, however, that for the same reasons that it had met the requirements of the headnote to Article V:16(e), it had also complied with Article II:1 of the Agreement.

(iv) Article IV:2 and Article IV.4

3.27 United States contended that Norway had not complied with the requirement of Article IV:4 that "procurement entities shall not seek or accept, in a manner which would have the effect of precluding competition, advice which may be used in the preparation of specifications for a specific procurement from a firm that may have a commercial interest in the procurement". Norway had admitted that Micro Design had worked to improve an earlier rejected proposal for the Trondheim project and had proposed a concept which had been subsequently adopted as the basis for the toll collection system. Norway had described how Micro Design, "as one of the 'architects' of the proposed concept", had been awarded the contract. The United States concern was not that the procuring entity had received unsolicited ideas as such, but that this had been done in the process of preparing "specifications for a specific procurement". Moreover, this had been done before it had been determined that a research and development contract had been called for and the specifications drawn up had served to help justify a decision to single tender the procurement as a "research and development" contract. The effect of allowing Micro Design to do this had been to ensure that its proprietary technology for the automatic vehicle identification products would be specified for the project. In fact, the proprietary system of any potential supplier could have communicated just as well with the rest of the equipment constituting the overall toll collection system. The United States did not accept the distinction that Norway made between general functional requirements and technical specifications; in the United States view, referring to broad functional requirements was just another way of referring to performance based technical specifications.

3.28 The United States further maintained that, by allowing Micro Design to specify that its proprietary equipment be chosen, the Norwegian authorities had violated Article IV:2(a) of the Agreement by prescribing specifications in terms of design rather than performance.

3.29 In response, Norway rejected that any violation of Article IV:4 had taken place and said that any questions regarding Article IV could only relate to the procurement of the prototypes under the contract since research and development procurement fell outside the scope of the Agreement. In the Norwegian view, Article IV:4 only prohibited a procuring entity from seeking or receiving advice from potential suppliers, if this was done in a manner that would have the effect of precluding competition and the advice might be used in the preparation of technical specifications for a specific procurement from the firm proffering the advice. Neither of those conditions had been met in the Trondheim procurement.

3.30 Micro Design, together with Trondheim Telecom, had put forward broad ideas, notably concerning the use of ISDN technology, for how to solve the problems with establishing a viable toll system for Trondheim, but these ideas were conceptual and not technically specific. These proposed solutions had not been related to the prototypes as such but to the whole toll ring system. Moreover, the contract concluded with Micro Design had not been based on technical specifications but on general functional requirements. One of the reasons why a research and development contract had been chosen was that it had not been found possible to prescribe technical specifications; one of the tasks under the contract was the development of such specifications. The use of research and development contracts in such situations was, to Norway's knowledge, common practice, including in the United States.

3.31 In regard to the arguments of the United States concerning the automatic vehicle identification (AVI) products, Norway said that the contract did not contain any requirements as to which system or what technology should be adopted. In fact, the electronic tag and reader system was not part of the research and development contract, except for the requirement to miniaturise the readers and integrate them into roadside cabinets. This part played no role in the procuring entity's decision to use a research and development contract to implement the project. Apart from miniaturisation, the only functional requirement with regard to the AVI system was that it should be able to identify toll tags. Moreover,

it was Norwegian and European policy in the DRIVE programmes to establish common open standards for AVI systems and not to prescribe the use of proprietary technology.

3.32 Norway argued that, given that the contract with Micro Design did not contain technical specifications but general functional requirements, no violation of Article IV:2 could have taken place.

(v) United States Request for a Panel Recommendation that Norway Negotiate a Mutually Satisfactory Solution with the United States

3.33 The United States requested the Panel to recommend that Norway negotiate a mutually satisfactory solution with the United States that took into account the lost opportunities of United States companies, including Amtech, in the procurement. The United States said that it was not asking the Panel to recommend "retroactive compensation". It had, however, to be remembered that the Agreement on Government Procurement, unlike the GATT and other Tokyo Round Codes, did not deal primarily with trade flows, but rather with events, the opportunity to bid. A Party's rules and procedures could be perfectly consistent with the Agreement's obligations, but if a country decided to ignore these rules in a particular case, the purpose of the Agreement would be negated. In such cases, a standard panel recommendation that the offending Party bring into its rules and practices into conformity with its obligations would not, by itself, be a sufficient remedy, and would not provide a sufficient deterrent effect, especially if it were felt that it would not be appropriate to order that procurements be annulled and recommenced. It was particularly important that there be remedies under the Agreement with a strong deterrent effect.

3.34 Moreover, in the specific case of the Trondheim procurement, Norway had, in the United States view, violated the Agreement a second time, with regard to exactly the same type of product that had been involved in the previous Oslo procurement. The Norwegian Government had taken this action despite an explicit promise not to do so. In the United States view, the Norwegian Government had known that its action at Trondheim would violate the Agreement and had made a calculated decision that this was an acceptable cost of supporting a domestic industry. The Agreement should not allow signatories to so profit from blatant disregard of its provisions.

3.35 The United States did not believe that it was necessary or appropriate for the Panel to prescribe exactly what Norway must do in order to negotiate a mutually satisfactory solution that took account of the lost opportunities of United States companies, including Amtech, in this procurement; such solutions could take a number of forms, such as annulment of the contract, the provision of additional opportunities to bid for future contracts, assurances about future conduct etc. Rather, it should be sufficient for the Panel to recommend that Norway negotiate a satisfactory solution to the dispute with the United States, leaving it for the parties to the dispute to work out the problem. The Panel might also recommend that, in the event that the proposed negotiation did not yield a satisfactory result, the Committee be prepared to consider authorising the United States to withdraw benefits under the Agreement from Norway with respect to opportunities to bid of equal value to the Trondheim contract.

3.36 Norway argued that this United States request to the Panel should be rejected on the following counts. First, Norway had not violated its obligations under the Agreement and Amtech had not lost any opportunities that Norway was obliged to afford it under the Agreement. Second, the scope of the complaint of the United States referred to the Panel, which was defined by reference to document GPR/W/110 submitted by the United States, did not include this request; therefore the request was outside the Panel's terms of reference and inadmissible.

3.37 Third, the Panel's terms of reference and the Agreement did not extend the mandate of the Panel to recommendations concerning compensation, if that was what the United States was seeking. In Norway's view, panel recommendations should be in line with the provisions in the Agreement limiting

Committee recommendations to the resolution of disputes on the basis of the operative provisions of the Agreement and of its objectives set out in the Preamble. No previous panel under the Agreement on Government Procurement had recommended compensation. Moreover, the practice of panels under other parts of the GATT system did not provide any precedent for the US claim. Recommendations that wrongfully collected anti-dumping duties be repaid were quite different; there the question was not one of compensation but of reimbursement of monies to the persons to whom they rightfully belonged. Other differences were that in such cases the amount to be repaid was easily ascertained and generally it was repaid to persons within the contracting party found in breach of its obligations, i.e. the importers. In the Trondheim case, Amtech had not had any expenses; therefore, no refund of excess charges or expenses incurred could be relevant. If any losses were thought be have been suffered by Amtech, they could only be losses of earnings which might or might not otherwise have accrued. Besides never having been taken into account in GATT dispute settlement, losses of this type would be very difficult or, more probably, impossible to calculate. No GATT practice instituted "retroactive compensation", either in the case of GATT codes dealing primarily with trade flows or with respect to codes dealing primarily with events.

3.38 Norway argued that the United States suggestion concerning a panel recommendation on withdrawal of benefits was totally unfounded and out of proportion, even if it was considered to be properly before the Panel. According to the Article VII:14, the Committee could authorise withdrawal of benefits under the Agreement only "if the Committee considers that the circumstances are serious enough to justify such action", and only if "the Committee's recommendations are not accepted by the Party, or Parties, to the dispute". The Committee would then not only have to find that Norway had violated the Agreement; it would also have to find that the violation was serious, and of such character as to justify partial suspension of Norway's rights under the Agreement. In the Norwegian view, there was clearly no basis for the Committee to reach such a conclusion in the present case.

IV. FINDINGS

4.1 The basic facts of the case before the Panel are that in March 1991 the Norwegian Public Roads Administration awarded a contract relating to electronic toll collection equipment for a toll system around the city of Trondheim to a Norwegian company, Micro Design, after single tendering the procurement with that company. The central point of difference between the two parties to the dispute was whether, in single tendering the procurement, Norway had met the requirements of Article V:16(e) of the Agreement. Norway maintained that the single tendering of the contract was justifiable under these provisions, since the contract was for research and development and the part of the contract which it considered was covered by the Agreement was for the procurement of prototypes which had been developed in the course of and for that research and development contract. Furthermore, Norway contended that it had complied with the requirements in the headnote to Article V:16. The United States maintained that Article V:16(e) was not applicable since, in its view, the objective of the contract was not research and development but the procurement of toll collection equipment. Moreover, the United States disputed that research and/or development had been required to produce these products, that the products could justifiably be characterised as prototypes and that Norway had met the requirements in the headnote to Article V:16.

4.2 The United States also contended that, in conducting the procurement, Norway had failed to respect its obligations under Article II:1 to accord to the products and suppliers of other Parties treatment no less favourable than that accorded to domestic products and suppliers. The United States further maintained that Norway had acted inconsistently with (a) the provisions of Article IV:4 of the Agreement by accepting advice from Micro Design on the specifications for the procurement and (b) the provisions of Article IV:2 by specifying the proprietary equipment of Micro Design for the project. Norway disputed all these allegations.

4.3 The Panel first considered the question of the coverage of the procurement by the Agreement. It noted that the Norwegian Public Roads Administration was an entity subject to the Agreement, and that this was accepted by the parties to the dispute. There was, however, a difference of view between the parties about the extent to which the procurement was subject to the Agreement. In the Norwegian view, only that part concerning the procurement of what Norway considered to be prototypes was covered, the rest not being for products but for research and development. As indicated above, the United States believed that the totality of the contract was for the procurement of products and therefore subject to the Agreement. While the Panel noted this difference of view, it also noted that both parties accepted that the contract was, at least in part, covered by the Agreement in an amount clearly in excess of the threshold provided for in Article I:1(b), and proceeded to examine the case on this basis.

4.4 The Panel noted that it was not in dispute that the procurement had been single tendered and that therefore it would have to meet the requirements of Article V:16 if it were to be in conformity with the Agreement. Only sub-paragraph (e) had been invoked by Norway in this regard. Article V:16(e) reads as follows:

> "The provisions of paragraphs 1-15 above governing open and selective tendering procedures need not apply in the following conditions, provided that single tendering is not used with a view to avoiding maximum possible competition or in a manner which would constitute a means of discrimination among foreign suppliers or protection to domestic producers: …
>
> (e) when an entity procures prototypes or a first product which are developed at its request in the course of, and for, a particular contract for research, experiment, study or original development. When such contracts have been fulfilled, subsequent procurements of products shall be subject to paragraphs 1-15 of this Article."

There is a footnote to sub-paragraph (e) which reads as follows:

> "Original development of a first product may include limited production in order to incorporate the results of field testing and to demonstrate that the product is suitable for production in quantity to acceptable quality standards. It does not extend to quantity production to establish commercial viability or to recover research and development costs."

4.5 The Panel agreed with the view that Article V:16 must be regarded as an exceptions provision containing, as made clear in the last sentence of Article V:1, a finite list of the circumstances under which Parties could deviate from the basic rules requiring open or selective tendering. Since Article V:16(e) was an exceptions provision, its scope had to be interpreted narrowly and it would be up to Norway, as the Party invoking the provision, to demonstrate the conformity of its actions with the provision.

4.6 The Panel first examined the conformity of the procurement with the conditions contained in the text of sub-paragraph (e) of Article V:16. The Panel noted that there was a basic difference of interpretation of this sub-paragraph between the parties to the dispute. The United States understood the words "contract for research … or original development" to mean that the objective of the contract must be the procurement of the results of research and/or development. In this view, the mere fact that a good deal of research and/or development was necessary in order to produce a product would not be sufficient to meet this standard, if it was the product rather than the results of the research and/or development that was the object of the procurement. For Norway, this phrase meant that the basic task required under the contract must be the conduct of research and/or development. In this interpretation, there was no requirement that the principal purpose of the procurement must be the acquisition of research and/or development results as such, as opposed to the products developed through such research and/or development (provided that the products were prototypes or a first product).

4.7 In examining this issue, the Panel first noted that, while the provision referred to "research, experiment, study or original development", the parties to the dispute had referred only to research and development. Furthermore, although the provision relates to "prototypes or a first product", only prototypes had been referred to. The Panel therefore limited its examination to these aspects. The question therefore before the Panel was whether, under the contract, the Norwegian Public Roads Administration had procured prototypes which had been developed at its request in the course of, and for, a particular contract for research or original development. The Panel then proceeded to examine the different interpretations of Norway and the United States of the phrase "contract for research … or original development", bearing in mind the general rule for the interpretation of treaties that a treaty be interpreted in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.

4.8 Given the above, it was clear to the Panel that the words "contract for research … or original development" in Article V:16(e) had to be interpreted from the perspective of the procuring entity. What was relevant at this point in the Agreement, as at others, was what the procuring entity was procuring, not the nature of the work that would have to be undertaken by the supplier to supply the goods and/or services being procured. It was the output of suppliers that the Agreement dealt with and that procuring entities were interested in purchasing, not the input of factors of production necessary to produce such output. For example, if most of the cost of producing a product that was being procured were to consist of payments for labour required to produce it, this would clearly not constitute a ground for claiming that that procurement was excluded from the coverage of the Agreement. The same reasoning must also apply if research and/or development were to constitute an input into the production of products being procured and were not itself the object of the procurement. For these reasons the Panel concluded that the phrase "contract for research … or original development" had to be understood as referring to a contract for the purpose of the procurement by the procuring entity of the results of research and/or original development, i.e. knowledge.[1]

4.9 The Panel did not mean to suggest by this that the results of the research and/or original development would necessarily have to be procured solely in abstract form, for example as scientific papers. The results could be procured, at least in part, in the form of prototypes or a first product, which would enable the procuring entity to learn of, and to test the validity of, the results of the research and/or development in a more practical way. The Panel noted that this possibility was foreseen in the footnote to Article V:16(e), where it said that "Original development of a first product may include limited production in order to … demonstrate that the product is suitable for production in quantity to acceptable quality standards …". However, it remained the case that, to meet the requirements of sub-paragraph (e), prototypes or a first product had to be developed "in the course of, and for, a particular contract for research … or original development". In the Panel's view, this meant that, for products to be considered prototypes, they must have as their principal purpose the testing and furthering of the knowledge that the procuring entity was procuring under the contract for research and/or development.[2]

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[1]In this regard, the Panel noted the definition of research and experimental development contained in the "Frascati Manual", 1980, of the OECD on "The Measurement of Scientific and Technical Activities". This reads as follows: "Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge to devise new applications."

[2]In this regard, the Panel noted that the Frascati Manual of the OECD (referred to in the previous footnote) indicates that prototypes should only be included in R&D so long as the primary objective is to make further technical improvements to the product concerned (paragraphs 69 and 72 and Table II.2).

4.10 In the light of the above, the Panel considered that, in order to be covered by sub-paragraph (e) of Article V:16, Norway would have had to have demonstrated, among other things, that (i) the Norwegian Public Roads Administration had had as its principal purpose in concluding the contract the procurement of the results of research and/or original development from Micro Design, and (ii) that the principal purpose of the equipment procured from Micro Design under the contract had been to test and provide a means of further developing the knowledge generated through that research and/or original development. In the view of the Panel, Norway had demonstrated neither of these points.

4.11 All the information provided by Norway to the Panel indicated that the principal purpose of the contract of the Norwegian Public Roads Administration with Micro Design had been the procurement of operational toll collection equipment for a functioning toll ring system. Norway had emphasised to the Panel the importance that the procuring entity attached to a speedy establishment of the toll ring as a fully operational system, for financial reasons in particular. The Panel further noted that Norway had said:

> "What the procuring entity had needed from the contract was not the research and development results as such, but, with regard to matters before the Panel, prototypes as part of the solutions constituting an entire integrated payment system. The Public Roads Administration had accordingly been provided with what it had requested, an **operational** toll ring and a national and European test area". (Norway's emphases)

The Panel noted the reference by Norway to the establishment of a national and European test area as having been an objective of the contract, but did not consider that Norway had demonstrated that this had been the principal purpose of the Public Roads Administration. The Panel also noted that Norway had not claimed that the Public Roads Administration had plans to procure further toll ring systems on the basis of the model developed at Trondheim. The Panel, therefore, found that Norway had not demonstrated that the principal purpose of the Norwegian Public Roads Administration had been the procurement of the results of research and/or development, rather than operational toll collection equipment as part of a functioning toll ring system.

4.12 Given that the Panel had found that Norway had not met the conditions of Article V:16(e), the Panel did not consider it necessary to examine whether in fact Micro Design had had to perform research and/or development in order to fulfil the terms of the contract. The Panel did not wish to contest that original development and possibly applied research may have been required. The Panel also wished to make it clear that the mere fact that prototypes might be put to operational use did not in itself mean that Article V:16(e) could not be invoked, provided nonetheless that the principal purpose governing their procurement was research and/or development.

4.13 The Panel considered that the fact that the basic ownership of the proprietary rights in the knowledge generated had been vested under the contract in Micro Design was consistent with its finding that the procurement of the results of research and/or original development had not been the principal purpose of the Norwegian Public Roads Administration. The Panel however did not wish to make a finding that such a disposition of the ownership of proprietary rights should be considered decisive, given that in the Trondheim procurement the procuring entity had reserved the right to use for its own purposes, free of charge, the knowledge developed under the contract. What was important for Article V:16(e) was whether the procuring entity was purchasing the results of research and/or original development, not whether it retained exclusive rights over such results.

4.14 For the above reasons, the Panel found that the single tendering of the contract by the Norwegian Public Roads Administration did not meet the requirements of Article V:16(e) of the Agreement. The Panel did not consider it necessary to examine the conformity of the procurement with the headnote to Article V:16(e), as requested by the United States, since it had already found that the procurement

could not be justified under that provision. Given that the Panel had found that the single tendering of the procurement could not be justified under Article V:16(e) and that it had not been justified under any other provision of the Agreement, the Panel concluded that Norway had not complied with its obligations under the Agreement in the conduct of the procurement.

4.15 The Panel then considered the other provisions invoked by the United States. Given that the Panel had found that Norway had unjustifiably single tendered the procurement with a Norwegian company, the Panel found that Norway had failed to comply with the obligation in Article II:1 to provide the suppliers of other Parties treatment no less favourable than that accorded to domestic suppliers.

4.16 The Panel then turned to Article IV of the Agreement. It understood the basic argument of the United States to be that advice from Micro Design had been used in the preparation of the specifications for the procurement in a manner which had helped Norway consider that the use of a research and development contract that could be single tendered was justified; i.e. the advice had been accepted "in a manner which would have the effect of precluding competition" and thus inconsistently with Article IV:4. Since the act of single tendering had precluded competition and since the Panel had already found that the contract should not have been single tendered, the Panel did not make a finding on Article IV.

4.17 The Panel then turned its attention to the recommendations that the United States had requested it to make. In regard to the United States' request that the Panel recommend that Norway take the necessary measures to bring its practices into compliance with the Agreement with regard to the Trondheim procurement, the Panel noted that all the acts of non-compliance alleged by the United States were acts that had taken place in the past. The only way mentioned during the Panel's proceedings that Norway could bring the Trondheim procurement into line with its obligations under the Agreement would be by annulling the contract and recommencing the procurement process. The Panel did not consider it appropriate to make such a recommendation. Recommendations of this nature had not been within customary practice in dispute settlement under the GATT system and the drafters of the Agreement on Government Procurement had not made specific provision that such recommendations be within the task assigned to panels under standard terms of reference. Moreover, the Panel considered that in the case under examination such a recommendation might be disproportionate, involving waste of resources and possible damage to the interests of third parties.

4.18 The United States had further requested the Panel to recommend that Norway negotiate a mutually satisfactory solution with the United States that took into account the lost opportunities in the procurement of United States' companies, including Amtech. Finally, the United States had requested the Panel to recommend that, in the event that the proposed negotiation did not yield a mutually satisfactory result, the Committee be prepared to authorise the United States to withdraw benefits under the Agreement from Norway with respect to opportunities to bid of equal value to the Trondheim contract. Norway had argued that, even if the Panel were to find that the procurement had been conducted inconsistently with the Agreement, such requests should be rejected because they were outside the scope of the complaint referred to the Panel and outside the tasks assigned to dispute settlement panels under the Agreement.

4.19 In examining these requests, the Panel first noted that, as instructed in its terms of reference, it had given Norway and the United States full opportunity to develop a mutually satisfactory solution. The Panel also noted that nothing prevented the two governments from negotiating at any time a mutually satisfactory solution that took into account the lost opportunities of United States' suppliers, provided such solution was consistent with their obligations under this and other GATT agreements. The issue was whether the Panel should recommend this and further recommend that the Committee be prepared to authorise the withdrawal of benefits under the Agreement from Norway if such a solution were not negotiated.

4.20 The Panel noted that the United States had indicated that it was not asking the Panel to recommend the negotiation of compensation for past losses. However, if this was not the case, it was not evident to the Panel what it was being asked to recommend that Norway negotiate with the United States. Clearly the "lost opportunities" referred to were past opportunities and the remedial action that might be negotiated taking into account these lost opportunities would have to be in the future and therefore in all probability compensatory. The request concerning withdrawal of benefits also confirmed to the Panel that the practical effect of the recommendations sought by the United States would be to invite Norway to offer compensation, in one form or another, to the United States for past losses. Given that the United States had indicated that this was not what it was seeking, the Panel had some difficulty in responding to this request, despite having made efforts to explore its implications with the parties.

4.21 Moreover, the Panel observed that, under the GATT, it was customary for panels to make findings regarding conformity with the General Agreement and to recommend that any measures found inconsistent with the General Agreement be terminated or brought into conformity from the time that the recommendation was adopted. The provision of compensation had been resorted to only if the immediate withdrawal of the measure was impracticable and as a temporary measure pending the withdrawal of the measures which were inconsistent with the General Agreement (BISD, 26S/216). Questions relating to compensation or withdrawal of benefits had been dealt with in a stage of the dispute settlement procedure subsequent to the adoption of panel reports.

4.22 The Panel then considered whether there were reasons that would justify dispute settlement panels under the Agreement on Government Procurement differing from the above practice under the General Agreement. In this respect, the Panel noted the argument of the United States that, because benefits accruing under the Agreement were primarily in respect of events (the opportunity to bid), rather than in respect of trade flows, and because government procurement by its very nature left considerable latitude for entities to act inconsistently with obligations under the Agreement in respect of those events even without rules or procedures inconsistent with those required by the Agreement, standard panel recommendations requiring an offending Party to bring its rules and practices into conformity would, in many cases, not by themselves constitute a sufficient remedy and would not provide a sufficient deterrent effect.

4.23 In considering this argument, the Panel was of the view that situations of the type described by the United States were not unique to government procurement. Considerable trade damage could be caused in other areas by an administrative decision without there necessarily being any GATT inconsistent legislation, for example in the areas of discretionary licensing, technical regulations, sanitary and phytosanitary measures and subsidies. Moreover, there had been cases where a temporary measure contested before the GATT had been lifted before a Panel had been able to report.[3]

4.24 The Panel also believed that, in cases concerning a particular past action, a panel finding of non-compliance would be of significance for the successful party: where the interpretation of the Agreement was in dispute, panel findings, once adopted by the Committee, would constitute guidance for future implementation of the Agreement by Parties.

4.25 Moreover, the Panel was not aware of any basis in the Agreement on Government Procurement for panels to adopt with regard to the issues under consideration a practice different from that customary under the General Agreement, at least in the absence of special terms of reference from the Committee.

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[3]See, for example, Report of the Panel on European Economic Community Restrictions on Imports of Dessert Apples: Complaint by Chile, adopted on 22 June 1989 (BISD 36S/93).

4.26 In the light of the above, the Panel did not consider that it would be appropriate for it to recommend that Norway negotiate a mutually satisfactory solution with the United States that took into account the lost opportunities of United States companies in the procurement or that, in the event that such a negotiation did not yield a mutually satisfactory result, the Committee be prepared to authorise the United States to withdraw benefits under the Agreement from Norway with respect to opportunities to bid of equal value to the Trondheim contract. The Panel had recognised, however, that nothing prevented the United States from pursuing these matters further in the Committee or from seeking to negotiate with Norway a mutually satisfactory solution provided that it was consistent with the provisions of this and other GATT agreements.

4.27 The Panel also recognised that it would be possible for the United States to raise in the Committee its concerns of a more general nature referred to in paragraph 4.22 above. The Panel noted that certain proposals for challenge procedures open to suppliers that were under consideration in the context of the negotiations on a revision of the Agreement on Government Procurement were intended to address the difficulty felt to exist in obtaining effective redress in respect of complaints about specific procurements.

V. CONCLUSIONS

5.1 On the basis of the findings set out above, the Panel concluded that Norway had not complied with its obligations under the Agreement on Government Procurement in its conduct of the procurement of toll collection equipment for the city of Trondheim in that the single tendering of this procurement could not be justified under Article V:16(e) or under other provisions of the Agreement.

5.2 The Panel recommends that the Committee request Norway to take the measures necessary to ensure that the entities listed in the Norwegian Annex to the Agreement conduct government procurement in accordance with the above findings.

ANNEX

The Content of the Contract with Micro Design

The following information is an unofficial translation provided by Norway of the relevant paragraphs of the contract.

The R&D contract contains the following basic elements:

- information concerning the R&D task
- description of the R&D task
- project management and personnel plant
- project implementation
- budget and payment plan
- legal matters
- rights and obligations

Information concerning the R&D task: the task involves the use of an ISDN pilot program for the toll ring around Trondheim. The development project will be implemented in collaboration with and co-ordinated with Trondheim Telecom, the Norwegian Institute of Technology, the Centre for Technical and Industrial Research (SINTEF), and other companies and institutions.

The task comprises developing and supplying full-scale prototype payment equipment for ten unmanned toll stations. The stations will form a toll ring around and through the city of Trondheim.

The project also involves fully automated, unattended payment system in two parking garages and automatic selective detection and information system for buses. The project will also involve integration of this system with the system at the toll stations.

Communication between the various system units (data concerning transactions, images, speech, statistics, alarms etc.) will be carried out in co-operation with Trondheim Telecom through development of the latter's pilot ISDN network.

Development of prototypes: 10 prototype toll stations for unmanned operation, 2 prototype control units for car parks, and 1 prototype bus priority unit are to be developed under the R&D contract.

Project management and personnel: Micro Design is responsible for the technical implementation of the task as described.

A personnel plan is set out with names and titles of 23 persons participating in the project, designating one person as responsible for the project and key personnel.

Project implementation: The procuring entity is the Public Roads Administration, which has delegated the day-to-day responsibility to the Chief County Roads Officer at the Sø/r-Trø/ndelag County Roads Office.

The general, functional requirements on which the R&D contract is based, shall be converted into detailed, functional requirements and technical solutions and specifications. This work shall be performed in close co-operation with the procuring entity, which sets the functional requirements and

approves the technical solutions. This is to be done in the form of project meetings and reports to the Public Roads Administration, in accordance with specific guidelines.

Sub-tasks have been identified under the project regarding research, development and testing to be performed by other entities than Micro Design, mainly by the Norwegian Institute of Technology.

According to the time schedule, the system is to be ready for preliminary toll collection operations on 14 October 1991. The time schedule contains specific dates for the implementation of the remainder of project, and a test period. The project shall be finalised on 14 April 1994.

Budget and payment plan: A budget and payment plan has been drawn up in accordance with the progress of the implementation of the project. The total budget for the project is NOK 28.5 million. Of the total amount, NOK 14.3 million is for R&D services, NOK 8.7 million for equipment, development and testing of prototypes, and NOK 5.5 million for electronic tags.

Project Description

The system to be developed shall meet the following requirements:

- application in unmanned toll stations
- application for payment in municipal car parks
- application in giving priority to public transport
- low investment and operating costs
- compact with regard to necessary hardware
- adaptation to future communications solutions in the ISDN network
- compatibility with existing and future payment systems at tag, system and module level
- compatibility with future European/international standards

The functional requirements shall be developed in the following areas:

A. Integration in separate electronics cabinets for unmanned operation.

Existing equipment must be miniaturised in order to meet the requirement for unmanned toll stations and minimise land use. The units shall fit mechanically into a cabinet which protects the electronic equipment adequately from stress/strain, such as traffic vibration and asphalt dust, and fluctuations of temperature.

Since the toll stations are to be unmanned, adequate routines must be developed for communicating alarms and reports regarding the status of the equipment.

B. Integrated video system

As the video recording unit is to be integrated into the computer at the toll station, new software must be developed for operating cameras and temporary local storage of images.

The images must be transferable from the control station to the central control unit on the telecommunications network.

C. Giving priority to public transport

The purpose of the project is to design, implement and test a prototype that satisfies the following requirements:

* The system shall be capable of updating and transferring timetables and schedules from the bus operation centre to the registration unit.

* Electronic equipment is to be built into cabinets similar to the ones used for electronic equipment in traffic lights.

* The equipment shall be capable of updating and transferring status and log files via a communications module.

D. Parking garage

In phase 1, the system shall comprise the following components:

- recording units including aerial system in two parking garages (Bakke and Leutenhaven)

- communication units for on-line transfer of data from the parking garages to a central control unit (modems)

- the Trondheim municipal parking company will provide a computer system to handle required subscription management.

In its final form (phase 2), the system shall comprise the following components:

- two registration units (one in each parking garage), each servicing two antennae

- recording units, redesigned for low unit price

- development of an updated and integrated subscription management account system.

E. Communications facilities

An unmanned system distributed over a wide area involves more stringent requirements as regards data communication.

The communications facilities are part of the pilot program of Trondheim Telecom, which is also in charge of developing and testing the facilities, and provides the equipment.

The supplier shall develop equipment that satisfies Norwegian Telecom's requirements as regards ISDN communications equipment.

F. Systems integration - alarms and self-testing routines

As the requirements for operational reliability are very stringent, new routines shall be developed for self-testing and alarms at all levels of the system. All alarms, functions and messages for the unmanned stations must be monitored from the manned toll stations. The personnel must also be able to assist motorists at the unmanned stations, and this requires video surveillance and voice communication.

G. Video follow up system

Pictures of motorists who pass a toll station illegally shall be transferred automatically from the toll stations to the toll company via the telecommunications network. The existing video system shall be further developed to deal with a minimum of 2,000 pictures in a twenty-four hour period. New compression algorithms from the Norwegian Institute of Technology shall be integrated into this system. The system shall be based on 386/486 computers in a network linked to the central system for finding.

H. Subscribers management system - requirements

It is presupposed that the central system will be based on the software system currently in use.

Proprietary Rights

The contract contains the following provisions on the ownership of proprietary rights in the intellectual property developed under the contract:

> The supplier shall have the proprietary right to the systems and programs developed under the research and development project in question. This proprietary right may not, however, be transferred to a third party by sale, licence or otherwise without the consent of the Public Roads Administration.
>
> The procuring agency reserves the right to use for its own purposes, free of charge, the systems and programs developed under the research and development project in question. In the event of future contracts for corresponding systems for the public roads system in Norway, the supplier has an obligation to supply such systems and programs. The procuring agency is not, however, obliged to purchase such systems and programs, and is free to invite open tenders and choose a competing system.