

# **Membership attitudes to the evolving role of E.U. fish producers' organisations : subsidiarity or subordination in Shetland?**

**James F Muir**<sup>[1]</sup> **James A Young**<sup>[2]</sup> and **Andrew P Smith**<sup>[3]</sup>

## **Acknowledgements**

The authors would like to acknowledge the support of J.H. Goodlad and the SFPO Ltd in addition to that provided by CEC DGXIV for this work under the terms of the EU AIR Project No AIR2-CT93-1392 Devolved and Regional Management Systems in Fisheries.

## **Abstract**

As the various mechanisms of fisheries resources management have matured, fishermen increasingly have responded by devising and developing different forms of collective representation. Within the European Union (EU), Producer's organisation (POs) provide a voluntary organisational structure which has evolved since its inception in the 1970s. During the intervening period, POs have become a major institutional force within the EU fisheries sector. Recent research into the PO concept in four countries in the EU found a variety of emphasis and roles adopted by the POs present at each vocation; for example, in some member states POs have become established as key players within the existing resource management system of the Common Fisheries Policy (CFP) whilst elsewhere their role was more focused upon management of the market. If such organisations are to continue to play a pivotal role in industry representation, it is essential that fishermen's perceptions of the organisational structure are reviewed to ensure their continued support and to assess any predisposition towards possible further evolutionary change.

This paper presents the results of one such investigation of the attitudes of a PO membership, that of the Shetland Fish Producers Organisation Ltd (SFPO), to this evolving organisation which represents them. Face to face, in-depth interviews were conducted in an attempt to explore their perceptions and attitudes to membership, along with possible expansion of the resource management role of the POs within the future evolution of the CFP. Analysis used Multiple Correspondence Analysis (MCA), and qualitative methods. Whilst the membership's view of the SFPO was found to be positive, some other interesting aspects did emerge, which may have implications for the future evolution of POs. Further resource management powers for POs would, on

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[1] Assistant Director, Institute of Aquaculture, University Of Stirling FK9 4LA, Scotland e-Mail<j.f.muir@stir.ac.uk>

[2] Lecturer in Marketing, Department Of Marketing. University of Stirling. Stirling FK9 4LA, Scotland. e-mail<jayoung@stir.ac.uk>

[3] Research Assistant, Department of Marketing/ Institute of Aquaculture, University of Stirling, Stirling FK9 4LA, Scotland e-mail<a.p.smith@stir.ac.uk>

[4] this research was undertaken as part of an EU AIR programme. 1991-1994 "Devolved and regional systems of management within the EU" in conjunction with CEMARE, University of Portsmouth; IFREMER, France and LEI-DLO, Netherlands.

[5] Whilst these assumptions may be expedient and even necessary to theory and policy formulation, many might consider that they do not constitute a wholly satisfactory representation of reality. Indeed it could be argued that the image of the individual fisherman as an autonomous actor in the system conflicts with assumptions of homogeneity, and furthermore that it is becoming increasingly dated (Hanna, 1993). Particularly over the past twenty years, the international extension of exclusive economic zones (EEZs) to 200 miles and the emergent views for even greater coastal state jurisdiction (Canfield, 1993; Joyner, 1993; Porter 1995) have encouraged fishermen, and even required them, to formalize Organizational structures to oversee their interests and representation.



this evidence, seem to necessitate sensitive and considered implementation and should be only a component part of wider reform of the CFP.

## Introduction

This paper presents the results of an investigation of the views of individual fishermen who are members of a fish Producers Organisation (PO). The research aimed to assess the feelings of individual producers, especially their perception of how their individual views are incorporated within their PO, as the PO concept has evolved as an increasingly influential Organisational structure within the fisheries sector. The paper examines the role of POs within the existing UK/EU management system and then constructs a typology, which identifies the case study PO[4]. The views of the case study PO, the Shetland Fish Producers' Organisation Ltd are then appraised by means of an attitude survey in respect of the PO's key Functional areas. Before this, some mention of the growth of collective representation is appropriate.

## The Move to Collective Representation

To This is now generally accepted that even where stringent regulation and supervision exist, open access fisheries soon become enmeshed in a relentless spiral wherein each producer seeks to maximise short-term profits to the detriment of long-term sustainability. Frequently, the fisheries management literature portrays fish producers as independent decision-makers, but with a tendency to being myopic by nature and homogeneous in thought. These assumptions are inherent in the "tragedy of the commons" paradigm (Hardin, 1968) and in the seminal Gordon-Shaefer model of fishery exploitation (Gordon 1953, 1954; Shaefer 1954, 1959). The resultant pattern of individuals' behaviour has encouraged outside control because it has often been considered that producers cannot be entrusted with responsibility for the management of the resource upon which they and others depend[5].

But more than ever before, the contemporary environments of fish industries world-wide demand a greater degree of unification and collective political representation of their constituent interests, especially in the light of the continuing politicisation of fisheries management. Management policy instruments such as quota controls, licenses, gear restrictions, closed areas, seasons and various other measures, implemented with varying degrees of enthusiasm through international policies have all tended to encourage producers to rely more upon endogenous collective representation. Further pressure to align with such representations has come through growing pressures of consumer environmentalism, *inter-alia*, which increase vulnerability of individual producers. In many cases, the individual producer has also seemingly perceived growing dissatisfaction with, if not the failure of, many current exogenous management systems. This has encouraged calls for more radical reviews and alternative management approaches such as those in Japan and Canada, where greater industry involvement has been nurtured through co-management (Berkes, 1989; Pinkerton, 1989).

In the case of the European Union (EU), a range of possible alternatives and variant existing Common Fisheries Policy has been forwarded over the years (Coull, 1979; McKellar, 1982; Nielsen, 1994; Scott, 1980; Symes, 1995; Western Isles Council, 1981). Whilst each perspective has necessarily emphasised their own situation, a common theme has been that affording greater devolution of control gives the

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[6] Council Regulation: (EEC)No.3796-81. OJ L379 31/12-51.



fishermen no less, and probably more, incentive to manage the resource in a sustainable fashion than any method of more dispersed ownership. Some are also of the opinion that further efficiency gains may be enjoyed, whatever the merits of the cases forwarded, a critical condition for the success of any -such new management scheme is the individual producers' perception of the ability of the collective Organisation to represent their needs.

## **The Rise of The PO In Europe**

POs were established in the (now) EU as an integral part of the EC Common Fisheries Policy (CFP) which provided a mechanism for policy implementation. Originally defined under the CFP Marketing Regulation Articles 5-8[6] as "any recognised Organisation or association of such Organisations, established on producers' own initiative for the purpose of taking such measures as will ensure that fishing is carried out along rational lines and that conditions for the sale of the products are improved", POs soon became a popular in different member states. Within the POs, fishermen were grouped by having common economic, political and geographical interests, and were enabled to operate price intervention (withdrawal) schemes, administer fish quotas, and undertake both marketing and processing functions.

Priorities vary between POs in different EU member states and indeed within countries. For example, in the UK all POs have limited financial liability[7] and employ a small core of permanent staff. However, although all are now dominated by quota management, there is considerable variation in their involvement in other functions, with some diversifying into fish processing and trading interests. Whereas in France, POs were often more orientated towards market intervention through the operation of withdrawal schemes (IFREMER, 1994), those in the Netherlands tend towards a uniform spread of functions (LEI-DTO, 1994).

Whatever the functional spread of individual POs, a significant change in emphases on resource management came with an extension to the Marketing regulation of the CFP in 1993[8]. This permitted POs to manage quotas on behalf of their members and, at the discretion of member states, the national quota. As a result, POs were effectively placed to therefore in EU fisheries resource management decision-making and their value as a case study in the collective representation of individual members' interests was confirmed if not enhanced. This was all the more so with UK POs where some moves in direction had occurred earlier[9].

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[7] A11 Scottish POs are registered as entities with limited financial liability under the "Industrial and Provident Societies Act: 1965", with exception of the Scottish Fishermen's Organisation Ltd which is bound by the "Companies Act: 1985". The two Northern Irish POs are bound by the "Industrial and Provident Societies Act (Northern Ireland): 1985".

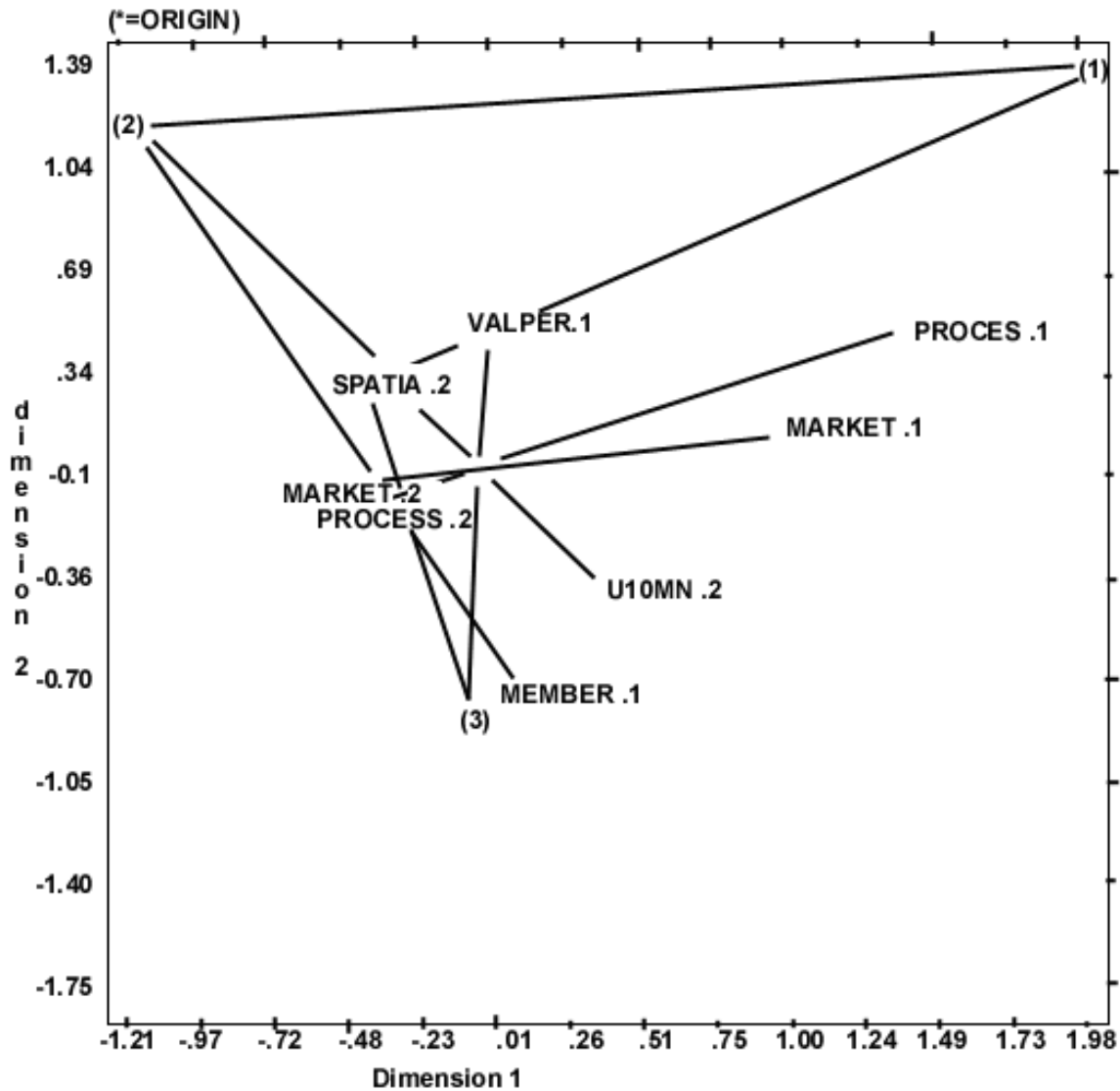
[8] Council Regulation 3759/92, as amended by Council Regulations 697/93 and 1891/93.

[9] Under the UK regime, POs may opt to allocate an annual quota on behalf of their members which is then distributed and managed at the discretion of the PO itself. Normally, allocation is based on a selection of criteria including vessel's track records, length, and crew size, or more simply on a flat rate basis. The relevant parameter will often vary between target species.

[10] Further expansion in Scotland is possible. Official recognition is being sought for the newly formed, The Northern PO.



Figure 1 : variable Plot of Scottish and Nothem Irish POs



#### SUMMARY OF MULTIPLE POINTS IN THE PLOT

POINT	DIM1	DIM2	ACTUAL LABEL OR MORE
(1)	2.06	1.39	SPATIA.3
(1)	2.06	1.39	MEMBER.3
(2)	-1.21	1.20	MEMBER.2
(2)	-1.21	1.20	U10MN.1
(3)	0.10	-0.82	VALPER.2
(3)	-0.3	-0.86	SPATIA.1

THE LABELS IN THE PLOT CORRESPOND TO THE VARIABLES IN THE FOLLOWING WAY:

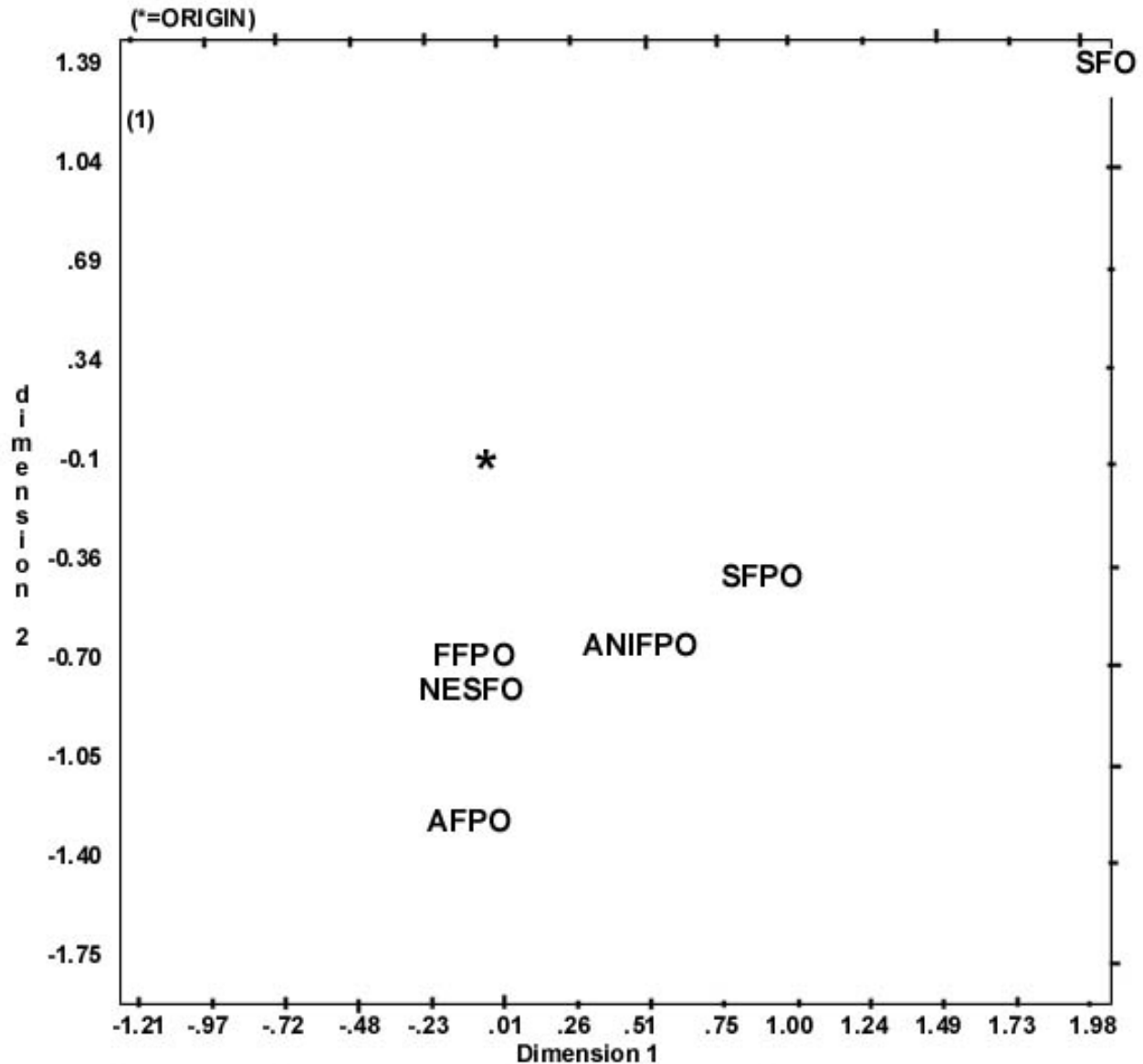
DIM 1      DIM 2



MEMBER.1	= 0.07	-0.76 = < 200 member vessels
MEMBER.2	= -1.21	1.20 = > 200 member vessels
MEMBER.3	= 2.06	1.39 = > 500 member vessels
U10MN.1	= -1.21	1.20 = >10% of member vessels under 10m
U10MN.2	= 0.40	-0.40 = < 10% of member vessels under 10m
VALPER.1	= 0.10	-0.82 = mean value of production per member vessel < 300.000 ECUs per annum
VALPER.2	= -0.06	0.49 = mean value of production per member vessel >300.000 ECUs per annum
SPATIA.1	= -0.03	-0.86 = sub-regional membership base
SPATIA.1	= -0.49	0.29 = regional membership base
SPATIA.1	= 2.06	1.39 = national membership base
MARKET.1	= 1.03	0.10 = involved in non-statutory marketing
MARKET.2	= -0.62	-0.06 = not involved in non-statutory marketing
PROCES.1	= 1.41	0.47 = involved in processing
PROCES.2	= -0.47	-0.16 = not involved in processing



Figure 2 : Subject Plot of Scottish and Nothem Irish POs



#### SUMMARY OF MULTIPLE POINTS IN THE PLOT

POINT	DIM1	DIM2	ACTUAL LABEL OR NAME
(1)	-1.21	1.20	ASFPO
(1)	-1.21	1.20	NIFPO

#### The UK POs

At the time of reporting the UK was home to some 18 POs with 9 in England and Wales, 7 in Scotland and 2 in Northern Ireland. In contrast to earlier periods of comparative stability, the PO movement have witnessed quite marked change more recently in England and Wales.

1999 saw three new POs established and in Scotland, the West Coast PO was granted official recognition in 1995[10]. This evolution may simply reflect the

[11] For a more detailed assessment of the contribution of the fisheries sector to the Shetland economy sector McNicoll, 1990



dynamic changes which have occurred within the industry as fishermen have responded to events by joining or forming POs. Such actions may also suggest that fishermen have perceived some need for change in the Organisation structures representing their views and indeed, that POs are an important vehicle for so doing.

A varied set of organisational needs is also suggested by the structural characteristics of the POs, which comprise a diversity of, for example, membership size- in 1994 the smallest PO had only eighteen member vessels, whilst the largest represented more than five hundred members. Total PO membership now accounts for 50% of the UK over 10-m fleet, 74% of its UK landings by volume and 60% in terms of value (Hatcher et al, 1995). Given this diversity and inherent differences in the characteristics of the fisheries prosecuted, this study confined its research to the POs based in Scotland and Northern Ireland. To put these nations into context, since the international adoption of 200 mile EEZs, Scotland has emerged as the dominant force within the UK industry. Combined with Northern Ireland, Scotland now accounts for over half of the 10-m fleet, three-quarters of the volume and two-thirds of the value of UK landings.

### **Why Shetland?**

In an attempt to classify the diverse characteristics of the POs found in Scotland and Northern Ireland, a typology was generated by using multiple correspondence analysis (MCA). MCA (Benzecri 1973) is a multivariate statistical analysis method which simultaneously produces<sup>1</sup> variable and subject (sample) mode analyses. It quantifies categorised data in order to produce a spatial representation (two dimensional in this case) of association and disassociation between variable response categories and between subjects (respondents). Respondents who are associated will tend to be close together and vice versa. The resultant plot reveals patterns, which might otherwise remain hidden and enables construction of a working typology of respondents.

Whereas correlation analysis measures the degree of association between two variables across all of their respective responses, MCA enables identification of association in both isolated and compound situations. MCA may thus delineate any association between two or more particular responses to two or more different questions even where the association is otherwise masked across the whole data set. Using MCA therefore permits recognition of particular responses to different questions which are associated or statistically related even if there is limited correlation between the whole range of responses relating to those questions (Greenacre 1992, Tian Sorooshian & Myers 1993). Groupings thereby produced enable construction of a typology which can be used to identify similar and dissimilar POs, whilst also identifying those which may be deemed representative of POs within a particular geographical area. This process thus assists identification of the more appropriate case study PO options from which a final selection may be made.

By a process of iteration, the six variables listed under Figure 1 were found to provide the clearest plot of association using the MCA technique. This is illustrated in Figure 1 where the relative positions of the categories variable responses in relation to each other are shown and accounts for the subsequent positioning of the POs in Figure 2. On the basis of the plot revealed in Figure 2, showing the range of POs representing fishermen in Scotland and Northern Ireland, it was



decided that the Shetland Fish Producer Organisation (SFPO) would best serve as a representative case study for further examination.

A number of pertinent features of the SFPO support its selection as the case study PO. The PO has a distinctive regional membership base and a fleet structure, which covers the completed range of vessels within the sampling frame. In terms of the size of membership, it is associated with the group of POs beneath the origin in Figure 2. Involvement in processing and marketing activities draws the SFPO away from the duster of adjacent POs on the plot and pulls towards the SAO. The latter is positioned in the upper right quartile due to its comparatively extensive involvement in processing and marketing and the size and nation-wide spread of its membership. Whilst the SFPO does not have the greatest involvement in processing and marketing, it has invested considerable resources in these functions. As fishermen become increasingly concerned with adding value to the fish caught, some perspective on how such activities are undertaken by a PO was considered desirable.

In the upper left quartile, ASFPO and NIFPO are located on multiple point ( 1 ) of Figure 2. These POs are disassociated from the other for reasons of their membership size and the larger number under xxm vessels which are in their membership, and are otherwise very similar to each other in terms of the remaining four variables. Given this pot of POs in Scotland and Northern Ireland it was considered that the SFPO provided the best model of the PO concept for further examination of attitudes of fishermen. Further reasons to support this selection might also be noted. The SFPO has existed for over 13 years but was formed some years after most of the other POs shown in Table 1. Its membership consisted primarily of Shetland boats, which were new recruits to the concept of PO representation, but also others who had already gained experience of POs with their membership of the SFO prior to switching to the SFPO. This more cosmopolitan membership base of PO experience provides an inactivating phenomenon, by definition increasingly rare as POs become more common. The interests of Shetland fishermen must so be viewed in the wider context of the importance of the aquatic resource sector to the Shetland total economy[11]. Whilst oil has become the major source of income to Shetland, both catching and farming of fish and their various associated industries, not least fish processing, are recognised to be renewable and sustainable activities which will remain vigil to the future socio-economic and cultural welfare of Shetland. This being so, the SFPO assumes a more central role within the local economy than may be found elsewhere within Scotland and indeed, the rest of the UK.

## **The Survey of Attitudes**

### **Sample Construction**

Investigation of the view of the SFPO's membership was undertaken with a sample drawn according to key criteria identified through depth interviews with the SFPO management and fish selling agents undertaking the administrative management of the member boats. A two-stage-stratified random sampling method was adopted based upon the following three principal criteria and related sub-divisions:

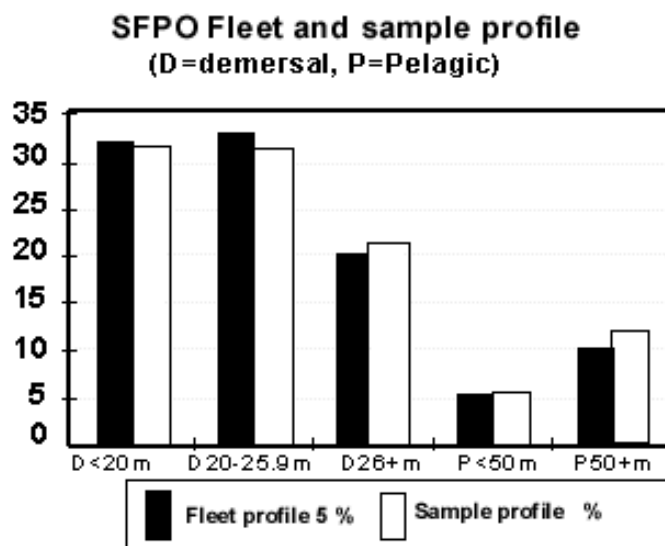
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- i) The vessel's large group of species: whitefish (W) or pelagic (P).
- ii) The vessel's length: (A)<20m, (B) 20-25.9m, (C) 26-39.9m<sup>[12]</sup>, (D) 40-50m & (E) 50m+.
- iii) Length of membership; 1)<1 year 2) 1-5 years 3)>5 years

Examination of the fleet according to these categories found that no demersal vessels fell into groups D or E of criteria (ii) and no pelagic vessels fell into groups (A), (B) or (C). Thus providing a non-overlapping continuum, which effectively combined these two criteria, in theory, the classification embraced fifteen types of member, but at the time of the survey the SFPO only had vessels representing twelve of these type: there being no pelagic vessels between 40-50m which had been members for less than 5 years, and none of 50-m length which had been in SFPO for less than 1 year. Seventy percent of the membership had been in the SFPO for over 5 years, 16% for 1-5 years, and 14% <1 year. The sample constituted 70% of the Shetland fleet and Figure 3, which compares the sample with the Shetland fleet in terms of the target species and vessel length, shows it to mirror closely the full fleet.

Figure 3: Sample and fleet profile in terms of criteria (i) and (ii).



### Data collection

A structured questionnaire was administered using face to face interviews with the 70% sample drawn from the SFPO's 60 members. The questionnaire focused upon three principal areas: the member's characteristic, attitudes ID SFPO and its activities and finally, more generally, attitudes to all POs.. Past and possible future attitudes were also explored in addition to the present, so that some assessment of

[12] In fact, no demersal dependent vessel is more than 30m in length

[13]The option of conducting a parallel survey amongst non-PO members was not possible for the simple reason that the "non-sector" in Shetland is effectively non-existent. At the time of the investigation, late 1994, non-members consisted of shell fishermen and one whitefish vessel owned by a member of the NESFO but skippered by a resident of Shetland. Whilst this in itself also may be taken as a powerful testament to the fishermen's perception of the PO in Shetland, the comparative approach may be worthy of conduct elsewhere. The shell fishermen were also rendered less significant to this research because they were currently not fishing due to the precautionary restrictions imposed following the Braer 011-tanker incident.



the evolution of different functions, PO behaviour and adequacy of representation could be made[13]. Wherever possible comparable responses were recorded by using rank values, scores and closed questions; at times these were necessarily interspersed with open questions.

## Data analysis

Coding of the respondents was undertaken by reference to the three criteria and related categories explained above in the construction of the sample. The three character alphanumeric code facilitated the use of MCA and maintained members' anonymity. For example, a respondent with the code WB2 would represent a demersal dependent vessel between 20 and 25.9m in length who had been in the SFPO for 1-5 years. A summary of the sample fleet in terms of these criteria codes is given in the following table.

**Table 1 : Coded criteria sample profile.**

Member Type/Code	No of Respondent	% of sample
<b>WAI</b>	2	4.7%
WA2	1	2.3%
WA3	10	24%
WB1	2	4.7%
WB2	4	9.5%
WB3	7	16.8%
WC1	1	2.3%
WC2	2	14.7%
WC3	6	14.4%
PD3	2	4.7%
PE2	1	2.3%
PE3	4	9.5%
<b>TOTAL</b>	<b>42</b>	<b>100%</b>

MCA was again used to present the data collected to generate a typology, only here in terms of members' attitudes. Reference to the above respondents' criteria codes in the resulting 'plot' enable identification of attitude groupings. Once more to facilitate identification of the most significant grouping, a process of elimination by iterative analyses was undertaken. It was concluded that only four variable categories would be used in the final MCA plot as these provided the best and most meaningful discriminations between subjects. Further interpretation of the findings was possible by use of the additional information gathered from the questionnaire.

The first variable was to identify whether quota management or another factor strongly related to quota issues, was the main reason for remaining in the PO. Secondly, some assessment of the overall satisfaction with the PO during the entire period of membership was needed. This was originally recorded on a whole

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[14] All subsequent ratings are based on the same 1-7 whole number only scale, where 7 is the maximum and 1 is the minimum.



number scale of 1-7[14] then subsequently condensed to three categories of "Very dissatisfied" (1 & 2), "Non-committal" (3,4&5) and "Very satisfied" (6 & 7). Thirdly, the membership's perception of the adequacy of quota enforcement was recorded and finally, whether or not POs should be made compulsory. It is interesting to note that all four variables selected relate directly to the PO's present and future resource management role.

## Results

The position of the categories of variables on the plot is shown in Figure 4 and the meaning of each point is given in the footnote. To aid interpretation of association revealed by the MCA, Figure 5 gives a stylised representation of the SFPO sample's plot. Inspection of the plot suggests that the members fall into five attitude types: Type A with a positive attitude quota-orientated, Type B with a mixed attitude quota-orientated, Type C with a mixed attitude not quota-orientated, Type D with a negative attitude quota-orientated and Type E where a negative tattooed not quota-orientated is to be found.

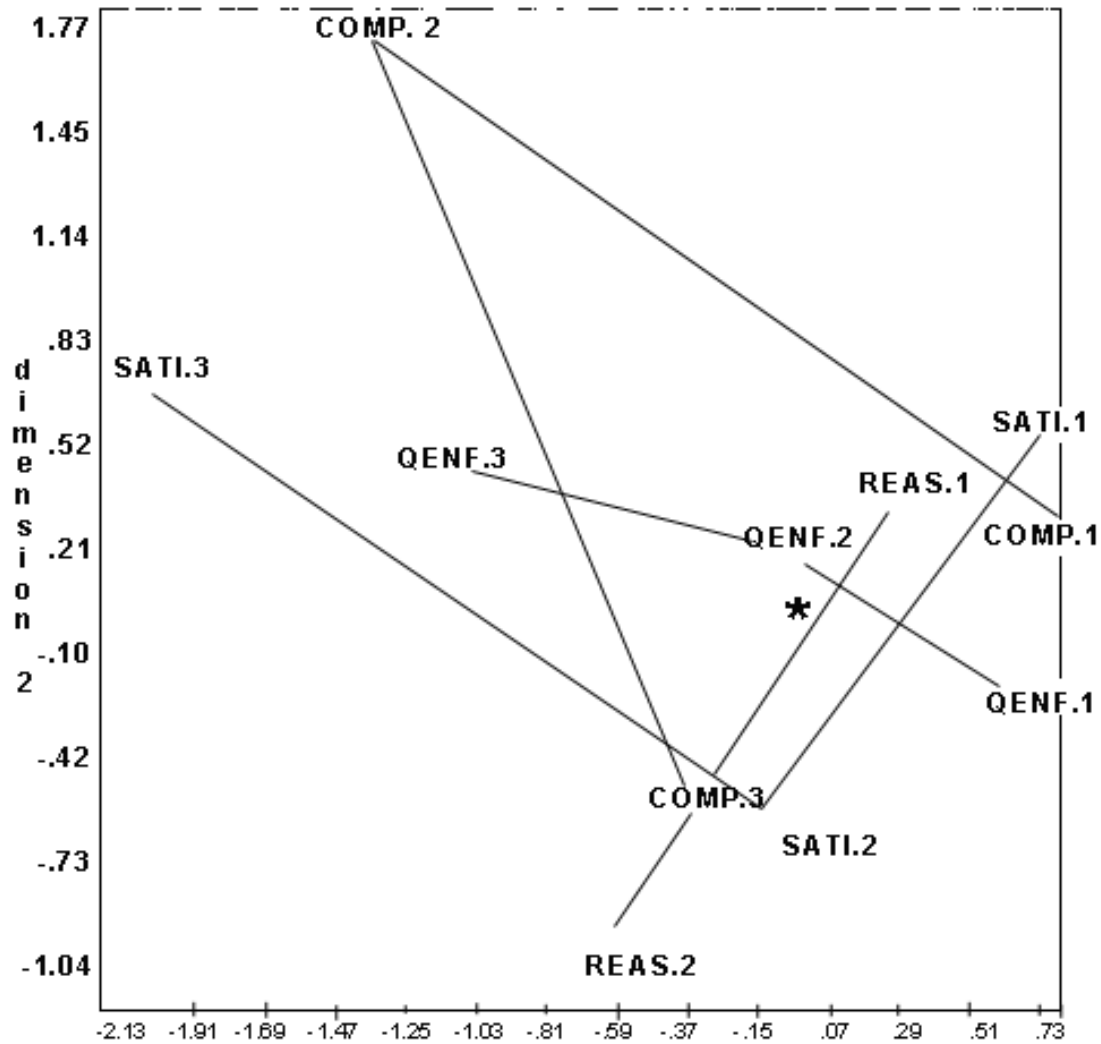
Type A is the largest group and accounts for 42% of the respondents. Interestingly, one half of these fishermen - or over one fifth of the sample, answered towards the PO in the most positive way possible. This sub-group, shown as A2 on Figure 5 was thus extremely satisfied, felt that PO quota enforcement was adequate and that membership of the PO should be made compulsory. It is worth noting that four of the seven pelagic-dependent respondents fall into this group, but also that the others in this group complete the full range of vessel sizes and membership tenures represented. However, types D & E, which are dominated by small and medium-sized whitefish boats, have the more negative opinions although these only account for 16% of the respondents. Types B & C, which have a mixed attitude typically feel the PO enforces quotas adequately, but whilst varying in their orientation to quotas still don't believe that PO membership should be made compulsory. These groups are also quotas heterogeneous, although each only contains one pelagic member- Out of a possible 54 combinations of responses, 20 variations were expressed by the respondents which suggests a considerable heterogeneity of opinion within the broader groupings outlined above.

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[15] The Organisation/communication structure of SFPO comprises a board of directors elected from the membership, a chief executive and deputy. Decisions are made and communicated back to members by word of mouth and by written correspondence. Opinions are canvassed on a relatively informal basis.



**Figure 4 : Plot of Attitude Variables  
(\*=ORIGIN)**



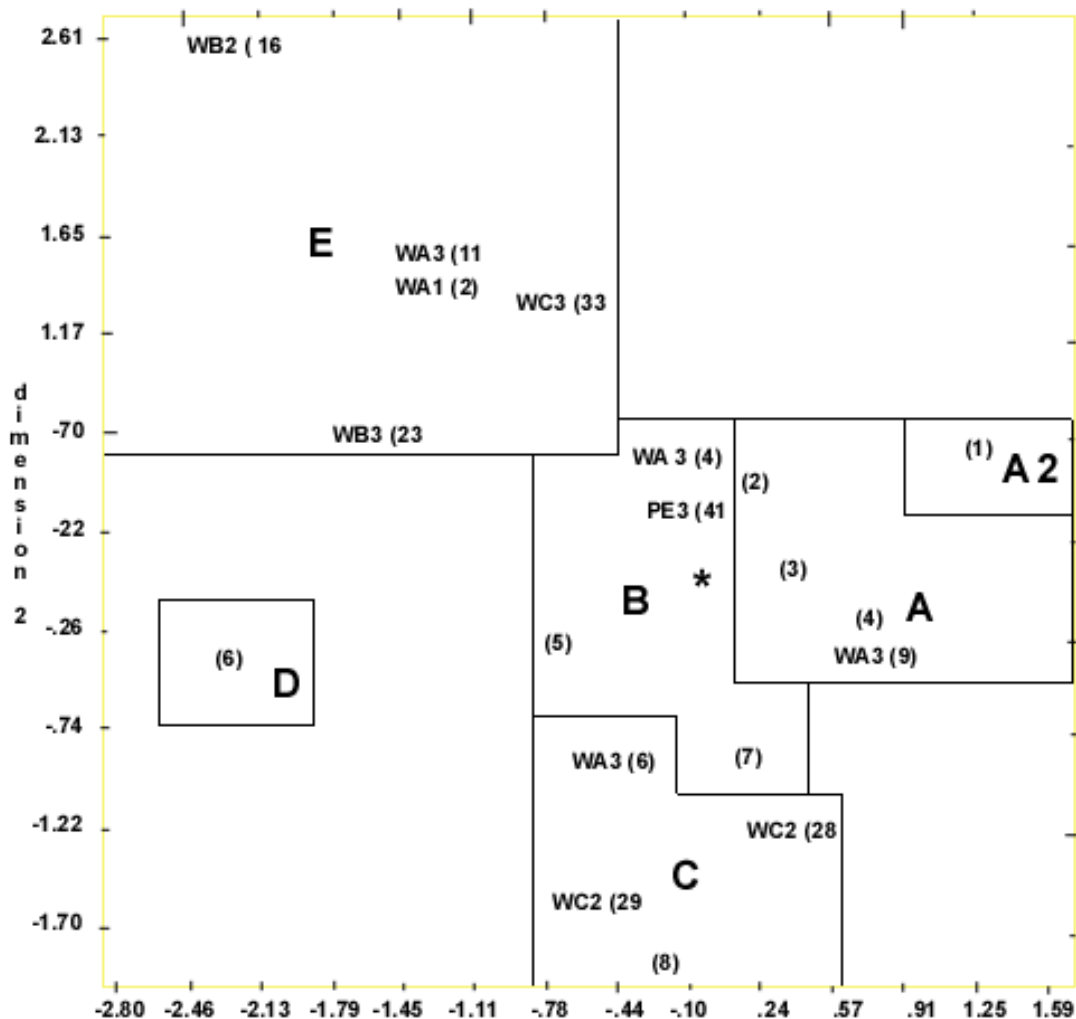
Dimension 1

THE LABELS IN THE PLOT CORRESPOND TO THE VARIABLES IN THE FOLLOWING WAY

	DIM 1	DIM 2	
REAS.1	= 0.23	0.34	= Quota orientated
REAS.2	= -0.66	-0.95	= Not quota orientated
SATI.1	= 0.71	0.57	= Very satisfied with SFPO's performance
SATI.2	= -0.17	-0.59	= Neither very satisfied nor very dissatisfied
SATI.3	= -2.13	0.68	= Very dissatisfied with SFPO's performance
COMP.1	= 0.80	0.25	= Yes, POs should be compulsory
COMP.2	= -1.41	1.77	= Unsure
COMP.3	= -0.38	-0.54	= No, POs shouldn't be compulsory
QENF.1	= 0.61	-0.25	= Quota rules adequately enforced by SFPO
QENF.1	= -0.12	0.19	= Unsure
QENF.1	= -1.22	0.44	= Quota rules not adequately enforced by SFPO



**Figure 5 : Plot of Respondent Attitude Groupings**  
 (\*=ORIGIN)



(Numbers in brackets after criteria codes are respondent i.d. numbers,  
 numbers in brackets alone denote respondents with four identical responses).

Dimension 1

( Numbers in brackets after criteria codes are respondent i.d. numbers, numbers in  
 brackets elone denote respondents with four indential responses)

#### SUMMARY OF MULTIPLE POINTS IN THE PLOT

POINT	DIM 1	DIM 2	ACTUAL LABEL
(1)	1.19	0.74	WC3 (34)
(1)	1.19	0.74	WB1 (15)
(1)	1.19	0.74	PE3 (39)
(1)	1.19	0.74	PE3 (40)
(1)	1.19	0.74	WA3 (10)
(1)	1.19	0.74	PD3 (36)
(1)	1.19	0.74	PE2 (38)

} AREA 'A2'



(1)	1.19	0.74	WA2 (3)	
(1)	1.19	0.74	WA3 (13)	
-----				} AREA 'A'
(2)	0.23	0.46	WA3 (5)	
(2)	0.23	0.46	WC3 (31)	
(3)	0.38	0.16	WB1 (14)	
(3)	0.60	0.09	PD3 (37)	
(3)	0.60	0.09	WB3 (26)	
(3)	0.60	0.09	WC3(35)	
(4)	0.75	-0.20	WB2(18)	
(4)	0.75	-0.20	WB3(21)	
(4)	0.75	-0.20	WB2(17)	
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(5)	-0.78	-0.29	WA3(7)	
(5)	-0.78	-0.29	WC3(30)	
(5)	-0.78	-0.29	WB3 (20)	
(7)	0.15	-0.84	WC3(32)	AREA 'B'
(7)	0.15	-0.84	WC1 (27)	
(7)	0.15	-0.84	WB2 (19)	
(7)	0.15	-0.84	WB3 (22)	
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(8)	-0.30	-1.89	WA1 (1)	
(8)	-0.30	-1.89	WB3 (25)	
(8)	-0.30	-1.89	WB3 (24)	AREA 'C'
(8)	-0.30	-1.89	PE3 (42)	
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(6)	-2.23	-0.31	WA3 (8)	
(6)	-2.23	-0.31	WA3 (12)	AREA 'D'

The additional information gathered aided further understanding of the generalised profile shown by the MCA plot. Over 75% of the sample felt that quota-related reasons, especially quota management, was now the main incentive to membership. This viewpoint has also been noted in other UK POs (Hatcher A., 1995). However it is significant to note that in the case of Shetland at least, the sample showed that a much smaller proportion of fishermen had been so influenced in the past. Quota management reasons were cited as the incentive to join the PO in the first place by just 56% of respondents, whilst the remainder gave a range of explanations the most commons of which was the system of price support. Although quota management has evolved into the overwhelmingly dominant reason for membership today, price support remains an important background concern.

Given the above alignment of membership groups to central PO functions, further exploration of individual member's levels of satisfaction was undertaken. This is important since it may be hypothesised that even where the orientation of the individual and the representative Organisation are coincident, there may be divergence in terms of their perceived performance rating. Any such divergence may then serve as a stimulus towards further re-organisation within, or outside of, the PO.





The satisfaction ratings given by the different membership types are shown in Figure 6. The perceived overall satisfaction with the PO rates an average score for the entire sample of 5.0 (sd: 1.7). Without doubt, this reflects a broadly favourable perception of individual members with the performance of the PO. Nonetheless, it would appear that satisfaction levels are also cyclical within the tenure of membership. Producers who have been members for less than one year give an average rating of 5.6, which then falls to a trough of 4.5 for those who have been in the PO for between one and five years. But where the period of membership extended beyond 5 years some improvement in satisfaction level to 4.9, was found. Though this may reflect the historical evolution of membership, and the changing expectations or after joining, a further explanation for this may be that individual member, progress through some adjustment process which begins, with high satisfaction, reflecting some relief from the circumstances which encouraged their decision to join. Realisation of the unforeseen may then account for the interim period of comparative disillusionment and ends with a rise in satisfaction to the mean level due to some reconciliation within the Organisation of the difficulties encountered.

Exploration of the nature and extent of integrated decision making within the PO and its membership was also undertaken. Comparatively infrequent contact from members to the PO was found but may be explained by satisfaction of communications from the PO to its members[15]. Moreover, there is a well-established network throughout the fishing community, family, and friends, which will tend to assist communication. Overall, satisfaction with the communication flow from the PO to the members was high at 5.9 on a 7-point scale. A lesser degree of satisfaction was found with the memberships' involvement in decisions relating to quota management - one of the key responses used in the MCA, above. This was rated at 4.9, which in view of the prominence of the issue may be deemed less satisfactory from the perspective of the SFPO management. The more malcontent members were found to be the WA3 and the WB3 vessels: interestingly the long-standing smaller boats prosecuting whitefish. The inherent to difficulty in satisfying all members and the contentious nature of the more detailed aspects OF quota-related issues was also evident in the fact that whilst 60% asserted that the PO



adequately enforced its quota rules, over one quarter of the sample were adamant that it did not.

Perhaps especially in POs such as this where a diverse membership exists, it is inevitable that varied levels of satisfaction will be perceived. Factions within the SFPO were cited as the most important obstacle to the operation of the PO by over one third of the sample, perhaps surprisingly more than double the 17% who cast the UK government as the biggest problem. Rivalry was found most intense between the WA/WB and WC groups; reflecting the perceived implications for the smaller boats of their divergence in catching power. In particular the ability of the larger boats to fish in poorer weather conditions and double crewing promotes their accumulation of quota track record. Of course this is not unique to the SFPO and neatly represents a microcosm of the wider fisheries dilemma. Investigation found no clear view that compulsory membership of POs might represent some solution to the industry's problems. But an important caveat to this was the rejection of such compulsory membership for reasons of freedom of choice rather than denial of the scope of the PO in resource management decisions. It may be interesting to speculate whether this historical attitude will continue to prevail.

Further evidence of an underlying conservatism may be interred from the significant majority view, over 75% of respondents, that the SFPO was already sufficiently diversified in its functional activity. On the other hand, it may be argued that given the existing extent of the SFPO's diversification then such a view simply reflects a realistic assessment of the potential risks and returns involved. Whatever the feelings regarding the wisdom of yet further expansion it is clear that the PO has evolved and become more entrenched within the accepted decision-making process of both individuals and the exogenous management Organisations. The survey results presented above provide some indication of the effectiveness so far of this Organisational structure and more importantly, go some way to highlighting the scope and potential problems in their possible future role.

## **Implications and Conclusions**

Arguably, the most notable finding of this research is the generally positive appraisal of the SFPO and the PO concept. While it may be argued that the Shetland fishing areas have been relatively well protected for the indigenous fishermen, such a positive disposition is not common within the contemporary fisheries environment, and is in some contrast the more generally jaundiced view of fisheries management via the CFP and national government. The feeling of satisfaction with the way that individual's views have been represented in the face of the current thrust adversity in the EU industry may be regarded as a significant achievement, and a powerful indicator of the perception of the Organisational concept. Some cause for optimism may also be inferred from the enhanced role attached to resource management decision-making. Earlier views tended to rely more upon the implied basis of subsidy through market intervention which in the current thrust of EU policy is arguably less sustainable. Indeed, if the EU were to move towards a policy of increased co-management of its fisheries (Jentoft, 1989. Pinkerton, 1989) the POs may well be considered as an appropriate structure at least for the embryonic stages.

Participation in such schemes might also be forthcoming for the simple reason that contemporary membership was already perceived by the SFPO membership to be effectively mandatory because of the UK government's erosion of the non-sector quota. Gauging the balance between giving fishermen greater say in policy,



individually or collectively, and completely abdicating responsibility is not easy. But for any success to be achieved and sustainable, any changes must enrich the partnership between POs. Their members, national government and the EU, simply transferring fisheries management responsibilities regardless of the consequences, will provide no long-term solution.

This case study also highlighted the prospect of factionalism even within sections of the industry with many similarities, let alone those existing at the supranational scale. With increased decision-making powers, it may seem reasonable to anticipate that yet further divisions might emerge. As has been noted earlier in the Netherlands (Van Ginkel, 1991), the resultant internal acrimony may divert dissatisfaction away from the exogenous agencies and more fundamental issues. Although such divergence of interests is likely to persist irrespective of the external circumstances, their resolution may be more likely where managed by an Organisational structure more attuned to local issues and which explicitly embraces such features at the stage of policy formulation.

In addition to the difficulties that can be expected to emerge within POs there are many more which will present themselves in the arena of inter-Organisational transactions and exchange. This is especially SO WHERE here divergent Organisational composition exist. Indeed, it may be argued that the individual examination of case study POs, even where part of a wider similarly focused study, will do little to identify the true scale of the conflict, which might emerge. Avoiding the risk of dysfunction, conflict and disagreement both within and between POs will thus be a significant challenge. However, whilst the PO structure is not without its problems, these are commonly surmounted within many oilier business Organisation and may thus be so in POs too.

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