Consolidation of local structures for the application of quality criteria in the environmental and food sector in Latin America

IAAC - PTB Workshop

"Relationship of accreditation bodies with regulatory agencies"

Quito - Ecuador August 19th - 20th, 2011

Manfred Kindler Imilce Zuta PTB Germany

1. PRESENTATION

In the current day to day practice several developing / young IAAC member bodies have to meet specific ISO 17011 expectations which are peer evaluated by new revisions of IAAC procedures PR 002 and PR 004. The first exchange of experiences about best practices of implementation has started in June 2010 at Asuncion / Paraguay (Cross Border Accreditation).

The IAAC General Assembly in 2010 approved the recommendation of the Executive Committee to continue with BPA-Workshops within the PTB project to address these issues.

To strengthen the relationship of accreditation bodies with regulatory agencies contributes to achieve milestones defined in the <u>IAAC Strategic Business Plan</u> 2008-2011. These are – depending on the emphasize that will be chosen by the participants of the workshops – issues such as

"2.4 Increase members' technical competence and knowledge

- a. Identify training needs of members. Develop and execute an annual training program utilizing the most appropriate methods (e.g. e-learning)
- b. Keep members informed on international, regional, and sectorial issues relevant to IAAC members

3.1 Ensure IAAC's effective link with different regional and international bodies related to accreditation activity

b. Increase communication and co-operation with other regional bodies, and other organizations of interest to IAAC, and implement or review signed IAAC MOUs.

4.5 Work with regional and international organizations of interest in the achievement of common objectives and in fund raising

- a. Strengthen alliances with SIM and COPANT in order to identify multi-lateral projects with international organizations such as OAS, IDB, and PTB.
- 5.1 Increase dialogue with trade representatives responsible for agreements within the Americas, e.g. MERCOSUR, CAFTA, bilaterals, in order to increase recognition of the activities of IAAC and obtain potential funding
- a. Identify the organizations and areas of common concerns and develop a communications plan.
- 5.2 Promote and disseminate the benefits of accreditation and the activities of IAAC (with the national authorities, industry sectors, and other interested parties)
- a. Develop and implement an annual communications and promotions plan that includes at least one awareness event"

The Best Accreditation Practices (BAP) Workshop was carried out, being aware of the necessity to find out ways to set up relationships with the stakeholders, mainly with the governmental entities.

Accreditation Bodies (ABs) have achievements and challenges in this subject, some of them in common areas; some of them are specific for each country. In consequence, a questionnaire was sent to gather more general information about these experiences before the workshop.

The BAP Workshop was developed based on this information.

2. OBJECTIVE

The objective of this workshop was:

- For each AB identification of the demand of the stakeholders, for instance those regulations which require accreditation services
- Prioritization of those common fields among the ABs of the region, in which the demand of accreditation services exists.
- Sharing experiences (achievements and challenges) that ABs have had in order to set up cooperation activities with the involved stakeholders in order to accomplish determined objectives.
- Based on this information, set up a working scheme for constructing a relationship with determined stakeholders in order to establish mutual cooperation activities for achieving the use of accreditation services, mainly in those prioritized fields.

Following results were expected:

- Collection of recommendations on processes and good practices for cooperation with regulatory agencies
- Identification of possible enforcing measures
- Increased common understanding among IAAC member bodies on how to deal with specific legal requirements and expectations of authorities

3. WORKSHOP DEVELOPMENT

The workshop was held at the Sheraton Hotel in Quito in August 19th and 20th, 2011. The OAE personnel have organized the event. The following programme was scheduled:

BAP Workshop: Relationship of accreditation bodies with regulatory agencies

Day 1	Presentation of examples
08.30	Registration
09.00 - 10.00	Welcome, Inauguration and
	Introduction of participants
10.00 – 10.30	Tea Break
10.30 – 12.00	Session 1 (Plenary)
	Presentation of collected examples of cooperation from the
	region
12.00 – 13.30	Lunch Break
13.30 – 15.00	Session 1 (continued) Presentation of collected
	examples of cooperation from the region
15.00 – 15.30	Tea Break
15.30 – 17.00	Session 2 (Plenary)
	Examples from other regions
Day 2	Evaluation of cases
09.00 - 09.30	Evaluation of cases Recap
	Recap Session 3
09.00 - 09.30	Recap
09.00 - 09.30	Recap Session 3
09.00 - 09.30 09.30 - 10.30	Recap Session 3 Evaluation of strengths and barriers of the case studies
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30 12.30 - 14.00	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations Lunch Break
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30 12.30 - 14.00	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations Lunch Break Session 5
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30 12.30 - 14.00	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations Lunch Break Session 5 Demand analysis - The role of accreditation in regulation -
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30 12.30 - 14.00 14.00 - 15.30	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations Lunch Break Session 5 Demand analysis - The role of accreditation in regulation - areas and expectations of regulators Tea Break Session 6
09.00 - 09.30 09.30 - 10.30 10.30 - 11.00 11.00 - 12.30 12.30 - 14.00 14.00 - 15.30	Recap Session 3 Evaluation of strengths and barriers of the case studies Tea Break Session 4 Lessons learnt - Development of recommendations Lunch Break Session 5 Demand analysis - The role of accreditation in regulation - areas and expectations of regulators Tea Break

In preparation of the workshop a short questionnaire was sent to all accreditation bodies of IAAC.

BAP Workshop: Relationship of accreditation bodies with regulatory agencies Questionnaire for participants

	Demand Analysis
1	Please identify areas of mandatory recognition, which potentially could be based on voluntary accreditation (for example: clinical diagnostics and ISO 15189).
2	Please indicate the involved ministries and authorities in these areas.
	Experiences
3	Could you present cases of successful cooperation between your accreditation body and authorities? Please indicate the area as healthcare sector, agriculture, energy, environmental protection, food industry, transportation and other.
4	Could you report about unsuccessful endeavours to cooperate with authorities and discuss the reasons of this barrier? Please indicate the area.

BAP Taller: Relación de los organismos de acreditación con las agencias regulatorias - Cuestionario para participantes

	Análisis de la Demanda
1	Por favor indique las áreas de reconocimiento obligatorio, que potencialmente podrían estar basadas en la acreditación voluntaria (por ejemplo: diagnósticos clínicos y la ISO 15189).
2	Por favor indique cuales son los ministerios y autoridades en estas áreas.
	Experiencias
3	¿Puede presentar casos de cooperación exitosa entre su organismo de acreditación y las autoridades? Por favor indique el área como sector salud, agricultura, energía, protección ambiental, industria alimenticia, transporte y otro.
4	¿Puede informar sobre iniciativas que no fueron exitosas de cooperación con las autoridades y comentar las razones para esta barrera? Por favor indique el área.

3.1 RESULTS

Three self-assessments by the participants were made:

- by questionnaire.
- by personal presentation per country and
- by additional interviews during the workshop,

Based on this information a discussion about the experiences in establishing relationship with the stakeholders was generated. Many proposals for constructing profitable relationship with stakeholders were presented. The experiences were classified by positive and negative factors:

Positive factors:

- Offer technical expertise to solve a problem
- Pressure to Government through public / disasters
- Develop presence also in provinces
- Involve the regulatory bodies to AB committees
- Train technical experts in aspects /character of accreditation
- Make benefits of accreditation visible
- Train lawyers to generate support
- Keep contact to be present when regulation is written
- · Give consultancy to legislative bodies on impact benefits
- Keep relations with intermediate level of government officials (avoid personnel change)
- Use existing gremia to disseminate accreditation
- Have positive example to convince other ministries
- Legal basis that requires accreditation for services
- Publicity campaign with clear message
- Demonstrate clear independence in technical decisions
- Continuous communication to make accreditation understandable
- Consult peers to find solutions
- Use the force from market / industry
- Identify appropriate platforms to disseminate accreditation or create it.

Negative factors

- · Technical language inhibits understanding
- Lacking enforcement
- Fear for loss of influence and responsibility
- Change of personnel at political level
- Lack of legal base
- Sectors that have developed parallel structures ("Closed Shop")
- Diversity of regulatory bodies (Federal Province)
- Confusion regarding technical terms (accreditation vs. authorization)
- · Lack of infrastructure for enforcement
- Transparency causes fears in regulatory bodies

- Lack of consistency between political and technical level
- Lack of confidence in accreditation
- Young ABs still need to "earn respect" for acceptance
- More than one AB in the country

As the result of the discussion a "To do list" was created:

What to do:

- TV spots, media, newspaper article
- Industry influence law makers
- Keep contact to be present when regulation is written
- Train technical experts in aspects / character of accreditation
- Attend sector meetings / conferences
- Use existing agreements (for example ILAC EPA Energy)
- Understand the client market to whom you are speaking
- Influence the lawyers and policy makers to remember accreditation for conformity assessment
- Use existing events to sell accreditation
- Prevent damage of image of accreditation in sectors with high corruption risks
- Round table and Business Breakfast
- Other positive factors

This exchange of experience helped the participants to find out common difficulties and alternatives for their solution, being aware of specific differences in the governmental framework of each country.

Based on this information a matrix was prepared which describes the current state and demands in establishing relationships with stakeholders in detail, considering the following areas:

IAAC BAP Quito	Food Alimentos	Water Agua	Environment Ambiente	Energy Energia	Health Salud	Transportation	Construction
ARG	xxx!	xx	xx	xxx!	х	?	!
BOL	xx	хх	×	?	xx	?	х
BRA	xxx	xxx	xxx	xx	xx	xx	xxx
CAN	xxx	xx	xx	xx	xxx	х	xxx
COL	xx	xxx	×	xxx	!	xx	!
CRI	xx	xxx	xxx	xx!	xx!	x!	xxx
CUB	xxx	xxx	xxx	xx	!	!	xx
DOM	xx	xx	xx	×	xx	?	?
ECU	xxx!	xxx	xx	?	х	х	?
ELS	xxx	xxx	xxx	×	xx	х	xxx
GUA	xx	xxx	xx	xx	xxx	xx	x!
GUY	х	х	?	?	х	?	?
JAM	xx	хх	xx	?	xx	?	xx
MEX	xx	xxx	xx	xxx	xx	xxx	xxx
NIC	xx	xxx	xxx	!	xx	!	!
PAN	!	xxx	xxx	xxx	xx	?	?
PAR	xxx	!	×	×	!	!	!
PER	xxx	xx	xx	xx	×	!	!
Π0	!	!	!	!	xx	xx	xx

The grade of implementation in each field was defined considering the following criteria:

- (***) Well implemented
- (**) In process
- (*) Planned
- (!) There is demand
- (?) No information

The positive and negative factors were also collected and discussed regarding their potential possibility to influence the situation by internal and external factors: internal depends on the AB and external depends on cooperative stakeholder. This evaluation allowed identifying the factors that can be improved directly by the AB.

For the group work three regional teams with common interests were installed:

Team A: "Caribbean" region

Canada, Cuba, Dominican Republic, Ecuador, Guyana, Jamaica, Trinidad & Tobago

Team B: Centro America

Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama

Team C: South America

Argentina, Bolivia, Brazil, Colombia, Ecuador, Paraguay, Peru

For each region the resources and demands in seven main areas of participating countries were identified and visualized in this matrix:

IAAC BAP Quito	Food Alimentos	Water Agua	Environment Ambiente	Energy Energia	Health Salud	Transportation	Construction
well implemented	A: CAN B: ELS C: ARG BRA ECU PAR PER		A: CUB B: CRI ELS NIC PAN C: BRA	A: B: MEX PAN C: ARG COL	A: CAN B: GUA C:	A: B: MEX C:	A: CAN B: CRI ELS MEX C: BRA
in progress xx	A: CUB DOM JAM B: CRI GUA MEX NIC C: BOL COL		A: CAN DOM JAM B: GUA MEX C: ARG ECU PER	A: CAN CUB B: CRI GUA C: BRA PER	A: DOM JAM TTO B: CRI ELS MEX NIC PAN C: BRA	A: B: GUA C: BRA COL PAR	A: CUB JAM TTO B: C:
	A: GUY B: C:	B:	A: B: C: BOL COL PAR	A: DOM B: ELS C: PAR	A: GUY B: C: BOL ECU PER	A: CAN B: CRI ELS C: ECU	A: B: GUA C: BOL
demands	A: TTO B: PAN C: ARG	A: TTO B: C: PAR	A: TTO	A: TTO B: CRI NIC C: ARG	A: CUB B: CRI C: ARG COL PAR	A: CUB TTO B: CRI C: PER	A: B: GUA NIC C: ARG COL PAR PER
no information ?			A: GUY	A: GUY JAM B: C: BOL ECU		A: DOM GUY JAM B: NIC PAN C: ARG BOL	A: DOM GUY B: PAN C: ECU

Based on a scoring system a ranking of priorities was calculated:

IAAC BAP Quito	Food Alimentos	Water Agua	Environment Ambiente	Energy Energia	Health Salud	Transportation	Construction
ххх	7	10	6	4	2	1	5
хх	9	6	8	6	9	4	3
х	1	1	3	3	4	4	2
!	3	2	1	4	5	4	6
?			1	4		7	4
SCORE	0,4	0,2	0,2	1,0	2,5	4,0	1,2
RANK	4	5	5	2	3	1	2

The ranking led to the following results: (1) Transportation, (2) Construction and Energy, (3) Healthcare, (4) Food safety, (5) Water testing and Environmental protection. The score is calculated by the relation of demands (!) to well implemented (xxx) cooperations

3.2 WORKING GROUP ACTIVITY

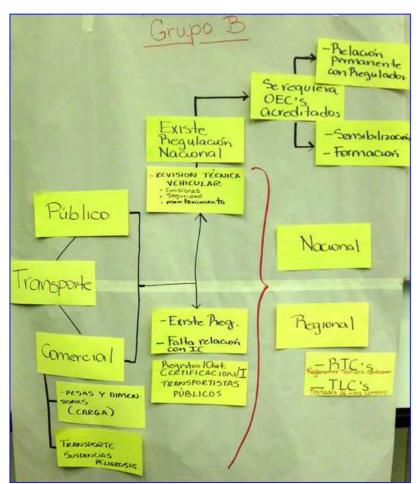
Based on the ranking prioritized areas were assigned. The tasks of the working groups were defined as:

- 1. Analyze the situation of cooperation with regulatory bodies in your region. Collect positive and negative examples.
- 2. Select a typical case. Develop options on how to deal with three mayor challenges in relation to authorities:
 - Lack of legal base
 - Lack of enforcement
 - Lack of personnel continuity others as examples
- 3. Develop a strategy of first steps; describe the challenges, positive and negative influencing factors. Think about suitable legal bases. Design a way forward.

The sectors proposed and selected were:

Caribbean Group A: CONSTRUCTIONCentro America Group B: TRANSPORTATION

• South America Group C: ENERGY



This scheme produced by Group B demonstrates the systematic analysis of the situation in the transportation branch.

After analyzing the general situation, three new teams were formed to demonstrate the necessary activities in deeper specified examples.

Team A: Cement (Jamaica)

Bolivia, Cuba, Ecuador, Guatemala, Guyana, Jamaica, Panama, Trinidad&Tobago

Punto de Partida:

- No accredited labs, there are inspection activities (BSJ)
 Legal basis: standard (technical regulation, specification)
- Regulation, testing, accreditation not required

Milestones:

- Establish communication
- TORs (draft)
- Action plan

Objetivo (Julio 2012):

- Establish a focus group for cement

Milestones:

- Develop a program (Jan 2012)
- Receive applications (Feb 2012)

Objetivo largo plazo:

- To include in regulation the accreditation

Team B: Car Inspection (El Salvador)

Argentina, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Nicaragua, Panama, Paraguay

Punto de Partida:

- No existe legislacion adecuada para la revision tecnica

Milestones:

- Contacto con autoridades y partes interesadas (Gobierno, reguladores, Ols, aseguradoras)
- Identificar el interes de las partes interesadas
- Sensibilización
- Capacitación y formación

Objetivo (Julio 2012):

Adecuar legislación

Milestones:

- Difusión
- Proceso de acreditación

Objetivo largo plazo:

- Contar con la estructura adecuada para la revision tecnica que incluya OEC acc.

Team C: Energy efficiency (Peru)

Brasil, Ecuador, El Salvador, Guatemala, Nicaragua, Paraguay, Peru

Punto de Partida:

- Interés de autoridad sin regulación acercamento a Indecopi
- Standby por cambio de autoridades

Milestones:

- Reiniciar contacto con la autoridad sensibilisación y formación
- Identificar necesidades de evaluación conformidad
- Contacto y participación de partes interesadas
- Definir la estrategia

Objetivo (Julio 2012):

- Establecer regulación sobre eficiencia energetica (etiquetado de electrodomesticos)

Milestones:

- Difusión a partes interesadas
- Capacitación
- Implementar el esquema de acreditación

Objetivo largo plazo (2015):

- Contar con por lo menos 1 solicitud

At the end the teams developed "Seven Commandments" as guidance for "the way forward":

Seven Commandments:

Thou shalt...

- 1. Define AB objectives clearly
- 2. Conduct a situational analysis (SWOT)
- 3. Develop strategies
- 4. Approach regulator
- 5. Implement programme
- 6. Evaluate programme and improve if necessary
- 7. Implement improved programme

Siete Mandamientos del OA exitoso:

- 1. Garantizar la participación de las partes interesadas
- 2. Comunicar asertivamente a las partes interesadas
- 3. Sistematizar los canales de comunicación
- 4. Aprender de las experiencias de otros
- 5. Desarrollar programas de capacitación y formación adecuados
- 6. Involucrar a las partes interesadas en el proceso de evaluación y acreditación
- 7. Evaluar el cumplimiento e impacto de las reglas y aplicar la mesora

4. RESULTS

The main results of the workshop are:

- a) Identification of the prioritized sectors regionally in which the ABs are interested in setting up a relationship with determined stakeholders.
- b) General working scheme for establishing productive relationships with stakeholders in the framework of a sector of interest for the AB.
- c) Identification of ABs with common interest, resources and/or demands in determined sectors, so they can work together and support each other in building up a good working cooperation.

The participants composed an activity plan till the third BAP workshop in June/July 2012:

ACTIVITY	RESPONSIBLE	DATE
Send the template for recording expression of interest and a detail of the action plan for constructing a good relationship with determined stakeholders in order to increase the use of the accreditation services	I.Zuta	09/09/2011
Send the Expression of Interest	ABs, Andrea Jiménez	23/09/2011
Definition of the scopes of projects.	ABs, Andrea Jiménez	30/09/2011
Centra Session for follow up	I.Zuta / M.Kindler	xxx
Identification of interested parties	ABs, Andrea Jiménez	31/10/2011
Development of Strategy- Action Plan	ABs involved, Andrea Jiménez	31/11/2011
Centra Session for follow up	I.Zuta / M.Kindler	xxx
Implementation of Action Plan	ABs involved,	
Second Workshop	PTB, IAAC	Febr 2012
Centra Session for follow up	I.Zuta / M. Kindler	
Third Workshop	PTB, IAAC	June / July 2012

5. FUTURE ACTIVITIES

According to the results mentioned, future activities should be:

- a) Revision of the identified prioritized demands and if it is necessary complete or specify the information about situation.
- b) ABs should send their "Expression of Interest" in improving their relationship with stakeholders.
- c) Use of "PTB Centra" Sessions or other media to discuss subjects and monitor the activities planned and discuss about subjects related.

Based on Deming-Cycle (Plan - Do - Check - Act) a time schedule_[h4] with more detailed activities, responsibilities and expected results were drafted

PTB F	Project:	Improve	ement of AB - S	takeholder Relations	
Year	Year Deming 1		Activity	Responsible	Result
		August	1st BAP Workshop	PTB, IAAC	Expression of Interest
	_	September	Hotline Support	Imilce Zuta, Manfred Kindler	Questionaire about scope
2011	PLAN	October	CENTRA Session	PTB, Imilce Zuta, Manfred Kindler	Definition of project scopes
	_	November	Hotline Support	Imilce Zuta, Manfred Kindler	Identification of partners and interested parties
		December	CENTRA Session	PTB, Imilce Zuta, Manfred Kindler	Development of strategies and action plans
		January	Hotline Support	Imilce Zuta, Manfred Kindler	Implementation of action plans
	8	February	2nd BAP Workshop	PTB, IAAC	Feedback of activities, problem solving, improvement
		March	Hotline Support	lmilce Zuta, Manfred Kindler	Implementation of action plans
2012	¥	April	CENTRA Session	PTB, Imilce Zuta, Manfred Kindler	Feedback of activities, problem solving, improvement
	CHECK	May	Hotline Support	Imilce Zuta, Manfred Kindler	Implementation of action plans
	0	June	CENTRA Session	PTB, Imilce Zuta, Manfred Kindler	Evaluation, preparation of final workshop
	ACT	July	3rd BAP Workshop	PTB, IAAC	Reporting, Issue of a guideline

PTB offers following support

- Support for participation in follow up Workshops;
- Organization of virtual meetings (e.g. through "CENTRA" sessions) for instance to consult with peers from the region;
- Backstopping and internet hotline
- Invitation of other external experts and resource persons to workshops
- Support for public events

6 Evaluation of the workshop

IAAC PTB Workshop BAP 19-20 Aug 2011		Excelente	Muy bueno	Bueno	Regular		84%
Aspecto a Evaluar	007 %	4	3	2	1	Sum	Mean
Instructor 1: Manfred Kindler	87%	49	40	5	0	94	3,5
1 Dominio del Tema	92%	18	6	1		25	3,7
2 Claridad de los temas expuestos	87%	12	13			25	3,5
3 Capacidad para responder preguntas	83%	11	13	1		25	3,3
4 Audiovisuales	74%	8	8	3		19	2,9
Instructor 2: Maria Imilce Zuta	81%	34	53	10	0	97	3,2
1 Dominio del Tema	83%	11	13	1		25	3,3
2 Claridad de los temas expuestos	80%	8	16	1		25	3,2
3 Capacidad para responder preguntas	75%	9	13	3		25	3,0
4 Audiovisuales	65%	6	11	5		22	2,6
Contenido del Curso	89%	75	38	6	0	119	3,6
1 Se ha cubierto el programa propuesto?	95%	19	5			24	3,8
2 Los ejemplos presentados fueron apropiades para clarificar el contenido teórico?	88%	15	8	1		24	3,5
3 La información obtenida será de utilidad para mejorar su trabajo?	86%	16	5	2		23	3,4
4 Los talleres (si aplica) han sido ilustrativos?	86%	14	9	1		24	3,5
5 Se ha cubierto sus expectativas?	80%	11	11	2		24	3,2
Instalaciones	95%	59	12	1	0	72	3,8
1 Comodidad	91%	18	5	1		24	3,6
2 Facilidad de acceso	97%	21	3			24	3,9
3 Disponibilidad de servicios básicos	96%	20	4			24	3,8
Materiales	65%	18	8	9	3	38	2,6
1 Calidad de copias	68%	5	3	2	1	11	2,7
2 Entrega oportuna	60%	6	2	4	1	13	2,4
3 Información completa	68%	7	3	3	1	14	2,7
<u>Coordinación</u>	85%	30	13	3	1	47	3,4
1 Puntualidad	83%	16	5	2	1	24	3,3
2 Información	87%	14	8	1		23	3,5
Servicio de Traducción	89%	13	5		1	19	3,6
Sum	84%	278	169	34	5	486	3,3
Percentage		57%	35%	7%	1%	100%	

Sugerencias / Otros temas que le interesaria recibir

- 3 Felicitaciones al organizador OAE
- 6 Por favor pasen los correos electronicos de participantes para consultos a posterior
- 7 Mantener talleres de esto tipo, que sean practicas y que bunden ideas para implementar Recibir la programación con anticipación y no al inicio del día /
- 10 Nuevas regulaciones en la Unión Europea
- 11 / Copias de las presentaciones
- 12 / Asesores legales en el OA y el desarollo para temas de OEC
- 19 / Continuación de este tema
- 20 Estos cursos son muy buenos. Los casos exitosos son muy orientadores Que la introducción del primer dia no se tan larga, porque podria haberse realisado un re??
- 21 General previo a una encuesta via internet, entonces nos habiesemos ahorrado mucho tempo.
- 24 Desarrollo en esquemos especificos

