

# 2008

ANNUAL REPORT





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Dear EPIA Members,

2008 has been a year of challenges for our industry and the financial crisis that has affected the global economy has spared no industry sector. Despite a high market uncertainty, Energy Security of Supply, Global Climate Change and Energy crisis remain strong fundamentals and massive recourse to low carbon energies and renewables are inescapable imperatives on the medium and long terms. Photovoltaic (PV) energy is central to the energy and climate debate and at the highest level on the political agenda.

The Climate and Energy Package and Renewable Energy Directive, adopted by the European Parliament on 17 December 2008, has marked a new decisive step forward in the development of renewables and has set very favourable political and economical environments for the accelerated penetration of PV. It will provide a secure investment environment, guaranteeing continued sustainable development of the PV sector.

Mirroring the Industry, our association has substantially evolved to best advocate for the PV industry at the highest political level, and to ensure that favourable framework conditions are effectively put in place allowing accelerated PV market development.


This year was also marked by the unanimous adoption by the Industry of EPIA's proposed aggressive target for PV to cover up to 12% of the EU electricity demand by 2020. In the last quarter of the year, EPIA launched "SET For 2020", a strategic study carried out with the collaboration of the Consulting Firm AT Kearney, to further substantiate and establish the roadmap for the Industry to reach this ambitious 2020 target.

With its extended industry Members' base, our association is more than ever highly representative of the European – and increasingly of the worldwide – PV Industry, and as these very lines are being written, I am very proud that we can welcome the 200th EPIA Member!

So much has been accomplished since our creation in 1985, and so much is still ahead of us!

We would like to thank you for your continued confidence in EPIA. The course of the solar age is being set today. Let's continue to build together a bright future for the solar photovoltaic energy worldwide.

Best regards,



Dr. Winfried Hoffmann  
EPIA President 2006-June 2008  
and President ad-interim since October 2008



Ernesto Macias  
EPIA President June-October 2008

# 1

## MESSAGE FROM THE PRESIDENTS



This year has been a year of both accelerated development and strategic transition for EPIA.

## A year of contrasted political and economic context

The external context has been marked by several important developments. In a general context of skyrocketing fuel prices, gas supply crisis and accelerated Global Climate Change concerns, setting a very favourable environment for the development of Renewable Energy Sources (RES), PV development progression has been further driven by the exceptional support framework in place in Spain, leading to a market estimated to be well above 2 GWp in this country alone.

The last quarter of the year was marked by a strong inversion of expectations, with the unfolding of the severest global economic downturn since decades, plummeting oil prices, and the fundamental revision of the support scheme in Spain including the introduction of a market cap, both raising strong concerns about short term market development in Europe and worldwide.

### ...the European Union (EU) RES directive and the new United States (US) Administration raise strong hopes in a deteriorating economic outlook.

In this new difficult outlook, the last days of the year were marked however by very promising events.

In Europe, the official adoption of the European Directive on Renewable Energy Sources has materialised EPIA's continuous efforts over the last two years, setting a very favourable political environment for the development of renewables by imposing ambitious mandatory targets for the adoption of renewables in the 27 EU Member States.

In the US, the election of President B. Obama has raised strong expectations for a radically new approach of the US Administration to energy strategy and Global Climate Change.

## EPIA's SET For 2020 Strategic Initiative has repositioned PV at the forefront of the political agenda

Last September, at the 23<sup>rd</sup> PV SEC Conference and Exhibition in Valencia, EPIA launched "SET For 2020", a strategic initiative fundamentally revising the PV industry's ambition and agenda. Under this initiative, the PV industry unanimously adopted a new ambitious target for PV to cover up to 12% of the EU electricity demand by 2020. A strategic study was launched with the Consulting Firm AT Kearney to build the roadmap and to analyse the boundary conditions required to achieve this ambitious target. The adoption of this new target is of major significance and materialises the move of PV from a niche into a mainstream energy technology.

On the political side, the presentation of the early conclusions of the study raised considerable attention at the highest political level, in particular placing PV in a privileged position to qualify for the first wave of the important EU Strategic Energy Technology Plan (SET Plan).

# 2

## KEY ACHIEVEMENTS 2008



### ...while providing industry's strategic insight and raising EPIA's profile and influence

From an industry perspective, building the roadmap for high penetration of PV has brought considerable insight in further assessing the PV industry's competitive landscape within the global electricity market, and understanding the barriers and obstacles that need to be overcome to allow massive integration of PV electricity in the electrical system.

By leading this in-depth analysis, EPIA has considerably increased its intellectual capital and raised its profile as a recognised high level authoritative organisation in the PV sector. This is a major step in EPIA building an extended PV Business Intelligence capability. EPIA has also engaged in a number of initiatives aimed at further expanding its network of influence and joining energy-related think tanks.

### EPIA has further consolidated its Members' base

By the end of 2008, EPIA counted 190 Members (154 Full Members, 21 Associate Members and 15 National Associations), a 42% progress year on year from the 134 Members' base at the start of the year. EPIA's membership base is highly representative of the PV industry in Europe and worldwide, across the entire PV value chain. Associate Members have increased as well, illustrating the stronger interconnection of EPIA at national level and with related associations and industries.

### ...and runs the most authoritative PV conferences, while partnering in the leading PV SEC event

EPIA has decided to concentrate on running a few high-level conferences, including the Market Workshop, the Investment Conference, the Thin Film Conference and, every other year, the PV Mediterranean Conference, which are progressively becoming reference events in the PV community.

EPIA has also strengthened its strategic partnership with WIP for the leading PV SEC Conference and Exhibition.

### EPIA has reached a further development stage and maturity level

From an internal perspective, this year was a time of transition and consolidation of the EPIA team, with the fulfilment of several open positions and the implementation of a senior management team that set the structure and basis for a future up-scaling of the organisation. The internal Human Resources, administrative and financial processes have also been revised in order to support a more sustainable and controlled operation of the association.

### ...and has achieved a strong financial progression

With a tighter cost control and an aggressive development of non-membership related revenues including sponsorship, conference registration fees and a reinforced partnership in the PV SEC event, EPIA has significantly overachieved its planned budget, representing a further 50% increase compared to 2007.

This has allowed EPIA to largely self-finance the unplanned "SET For 2020" strategic study, while still delivering a substantial cash reserve. EPIA is more than ever perfectly set to address the challenges of the growing PV industry and making the PV promises come true.



## Paving the way out of disrupted times

No doubt, the world has never found itself in a situation of such uncertainty, at the same time challenging the foundations of “modern economy” and the global environmental sustainability of our development model.

With this sudden shift in economic realities, environmental constraints and social values, while many traditional industries are questioning their simple existence beyond the crisis, PV is set to constitute a centrepiece of building a new economic and energy regime, and is promising bright futures ahead.

### ...by creating the Vision

During the last quarter, EPIA launched “SET For 2020”, a strategic initiative intended to further accelerate the penetration of PV in tomorrow's energy mix. EPIA's “SET For 2020” initiative has set the ambitious target for PV to cover up to 12% of the EU electricity demand by 2020. It has set a clear Industry Vision.

Realising this vision has profound implications. This is about step change; this is about moving from a niche to a mainstream energy technology. It requires a fundamental rethinking of the PV industry's priorities and approach to the energy markets. It requires reshaping the boundary conditions today constraining the higher penetration of PV.

The Study Phase of this initiative, realised in partnership with the Consulting Firm AT Kearney, is being completed at this very moment as we write this report. It clearly identifies the challenges and barriers to be overcome and establishes a clear roadmap for the industry to reach such a target.

### ...while keeping focus on the road

Within the implementation plan of building the global framework supporting the Industry Vision, EPIA will concentrate on setting up these actions which are required to ensure short-term market development. Beyond its key institutional activities, EPIA will focus on:

#### Ensuring market continuity by leveraging the best practices at Member States' level

The recently adopted Directive on the promotion of the use of Energy from Renewable Sources (RES) sets a very favourable environment for the accelerated development of renewables. It is of crucial importance that this directive be effectively translated into the individual legislation of the 27 EU Member States.

To this end, EPIA will structurally strengthen its cooperation with National Associations in order to leverage the best practices and to maximise influence at national level to guarantee the implementation of a favourable policy and regulatory environment for the accelerated deployment of PV. In addition to stimulating existing PV markets, EPIA will also undertake to selectively opening promising energy markets for PV.

#### Accelerating path to competitiveness and managing the Solar Europe Initiative (SEI)

The Industry dynamism in responding to the European Commission (EC) SET Plan associated with the revised industry targets resulting from the “SET For 2020” initiative have placed PV within the first wave of technologies to be integrated into the SET Plan. EPIA has taken a leading role in shaping the PV industry's input to the SET Plan, the Solar Europe Initiative, which constitutes a crucial opportunity for the industry to accelerate its path to competitiveness

# 3

## EPIA STRATEGY AND PRIORITIES 2009-2012



through Research, Development, Demonstration and Deployment initiatives to be implemented in the form of Public-Private partnerships.

### Consolidating Industry image

PV has a positive image globally and enjoys a significant capital of sympathy by the general public.

The rapid development of the industry has recently put PV increasingly under the spotlight and, on many occasions, competing interests have challenged the PV industry in many respects. In order to ensure the continued wide public and political acceptance of PV, it is essential that the PV industry reinforces its communication on its green credentials, but also on its social contribution as an industry generating sustained and sustainable socio-economic development. The multi-faceted value of PV technology resulting from the multiple applications and services it can provide must also be communicated to the wider public and deny emerging misconceptions about its limitations.

### Demonstrating “Investment Parity”

The Investment Parity, defined as the point in time where investing in PV is economically more favourable than buying electricity over the lifetime of the installation, is likely to be reached in the coming months in some Southern regions of Europe. After establishing such Investment Parity, EPIA will take a leading role in communicating and leveraging this historical milestone to demonstrate the promise of PV in an effort to further accelerate its public acceptance and further market penetration.

### Breaking the “electrical vault”

The massive generation of PV electricity will require substantial modifications of the electrical system in order to accommodate the distributed and intermittent nature of PV electricity. Although this limitation will only become effective in the medium term, when PV penetration will have already substantially increased, measures need to be taken today in order to be implemented in time, considering the complex environment and long cycle times prevailing for infrastructure investments in the electrical sector.

### EPIA will further expand influence as a representative of a mainstream electricity industry

Beyond its institutional activities, recognising the wider scope of challenges affecting the PV industry, EPIA will take a leadership role in building knowledge and extending its network of influence and alliances in order to promote and protect PV industry interests within the wider stakeholder context.



# 4

## POLICY ACTIVITIES



→ EPIA POLICY ACTIVITIES WERE VERY DIVERSE THROUGHOUT 2008. CLOSE MONITORING AND LOBBYING ACTIVITIES OF EPIA RESULTED IN THE VERY POSITIVE ADOPTION OF THE **DIRECTIVE ON THE PROMOTION OF THE USE OF ENERGY FROM RENEWABLE SOURCES (RES)**, PART OF THE SO-CALLED “**CLIMATE AND ENERGY**” **LEGISLATIVE PACKAGE**. IN ADDITION, EPIA FOLLOWED A NUMBER OF **OTHER EU PIECES OF LEGISLATION** RELEVANT TO THE PV SECTOR, AND PARTICIPATED AS AN OBSERVER IN THE **INTERNATIONAL NEGOTIATIONS ON CLIMATE CHANGE**.

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## 1. Directive on the promotion of the use of Energy from Renewable Sources (RES)

In January 2008, the EC published its "Climate and Energy" legislative package, including a proposal for a new directive on the promotion of the use of renewable energies.

### A. EPIA's Objective

- Ensure the new directive provides a clear and secure legal framework to boost the development of the PV sector
- Avoid any detrimental provision which could jeopardise national support schemes (Feed-in Tariffs)

### B. EPIA's Action

The drafting of this new directive represented the n°1 priority of EPIA policy activities in 2008 and very intensive monitoring and lobbying efforts were made, in particular via:

- Drafting of position papers and amendments based on the comments received from Members
- Meetings with Energy Attachés of Permanent Representations in Brussels (DE, ES, GR, UK, PL, CY, IT, FR, PT, RO)
- Meetings with Members of the European Parliament (MEP) (Turmes, Hall, Podimata, Lebech, Vakalis, Thomsen, Langen) and the European People's Party Policy Adviser to the Industry (ITRE) Committee
- Drafting of press releases
- Regular information for EPIA Members via Policy Updates
- Participation in events (International Feed-in Tariff Cooperation, European Parliament (EP) committees, international and national conferences, etc.)

### C. Cooperation with

EREC (European Renewable Energy Council), other renewable energy associations, WFC (World Future Council) and EREF (European Renewable Energies Federation).

### D. Outcome

- Adoption of the new directive by the EP on 17 December 2008
- EPIA is very satisfied: the final agreement sets a clear legal framework which should foster further development of the PV sector. Among the key elements featured are: a binding overall target of 20% of renewable energy in the EU energy mix by 2020; binding national targets; reduction and simplification of administrative procedures; national support schemes (in particular Feed-in Tariffs) are safeguarded, contrary to the initial EC proposal.

## 2. Strategic Energy Technology (SET) Plan

The SET Plan was endorsed by Member States on 28 February 2008. It foresees the setting up of priority Industrial Initiatives, including a Solar Europe Initiative (SEI), dealing with PV and concentrated solar power components. The initiative is led by the industry, in order to boost the development of the sector beyond "business as usual".

## A. EPIA's Objective

Inform Members about the SET Plan and gather their concrete input to give shape to the SEI.

## B. EPIA's Action

- Meetings on various occasions and continuous interaction with EC officials (Directorate General (DG) Transport and Energy and DG Research)
- Organisation of 4 "SET Plan workshops"
- New target for the PV sector announced at the EU PVSEC in September 2008: to cover up to 12% of the EU electricity demand by 2020, provided that the appropriate conditions are in place
- Selection of the consultancy AT Kearney to support the development of a strategic analysis on how to reach the 12% PV target by 2020 ("SET for 2020" study)

## C. Cooperation with

EU PV Technology Platform and EUREC (European Renewable Energy Research Centres).

## D. Outcome

- EC satisfied with the more ambitious 12 % PV target by 2020
- Increased involvement of EPIA Members in the design of the SEI
- On-going "SET For 2020" study carried out by AT Kearney



## 3. REACH-EU Regulation on the Registration, Evaluation and Authorisation of Chemicals

REACH came into force on 1 June 2007 to streamline and improve the former legislative framework for chemicals in the EU. It requires industry to register all chemical substances manufactured in or imported into the EU within strict deadlines.

## A. EPIA's Objective

Stress the crucial need for Member companies to engage in dialogue with their suppliers to ensure the latter comply with REACH requirements (i.e. register the chemical substances that the PV industry is using) in order to avoid any disruption to the supply chain.

## B. EPIA's Action

- Meeting with an expert from CEFIC (European Chemicals Industry association) to inform EPIA Members about REACH
- Meeting with an expert from the ReachCentrum, expert consultancy on REACH, so as to have an overview of the state of preparation of PV companies and clarification on requirements to be met by PV companies
- Selection of a specialist consultancy to assist EPIA in developing a guidance document for its Members and follow up of the drafting process

## C. Outcome

Completion of a guidance document on REACH in June 2008 by EPIA assisted by the consultancy ReachCentrum to facilitate understanding of REACH requirements and its impact on the PV sector.

## 4. Recast of the Energy Performance of Buildings Directive (EPBD)

The existing Energy Performance of Buildings Directive (2002/91/EC) aims to improve the energy performance of buildings. It is now under recast.

### A. EPIA's Objective

Seize the opportunity of this recast to boost PV deployment in buildings.

### B. EPIA's Action

- Meetings with EC officials (DG Transport and Energy, DG Enterprise, DG Environment)
- Reply to the EC stakeholder consultation based on comments received from Members
- Drafting of position papers and amendments based on comments received from Members

### C. Cooperation with

EREC, other renewable energy associations, AIE (European Association of electrical contractors).

### D. Outcome

- Publication by the EC of its proposal for a recast of EPBD, on 13 November 2008
- The final EC proposal appeared much better than previous drafts.
- Some elements can still be improved (role of on-site renewable energies, national action plans, surplus energy buildings)
- Proposal currently under examination by the EP and Council (first reading)



## 5. Recast of the Waste of Electrical and Electronic Equipment (WEEE) Directive

The existing WEEE directive seeks to increase the amount of waste electrical and electronic equipment that is recycled. PV is not included in the scope of this directive but the EC proposed to recast the directive, with the risk of a possible inclusion of PV.

### A. EPIA's Objective

A continued exclusion of PV from the scope of the recast directive and promotion of the on-going development by PV Cycle of a voluntary sectorial agreement on a take-back and recycling scheme for end of life modules.

### B. EPIA's Action

- Joint reply by EPIA and PV Cycle to the EC stakeholder consultation based on comments received from Members
- Meetings with EC officials (DG Environment)

### C. Cooperation with PV Cycle.

### D. Outcome

- Publication by the EC of its proposal for a recast of WEEE on 3 December 2008
- EPIA is satisfied: the reference to PV products (former article 13) as potential products to be included under the scope of WEEE is deleted

## 6. Recast of the Directive on the Restriction of certain Hazardous Substances (RoHS)

The RoHS Directive bans the use of certain heavy metals and brominated flame retardants in electrical and electronic equipment placed on the EU market as of July 2006. PV is not included in the scope of this directive but the EC proposed to recast the directive, with the risk of a possible inclusion of PV.

### A. EPIA's Objective

A continued exclusion of PV from the scope of the recast directive and promotion of the on-going development by PV Cycle of a voluntary sectorial agreement on a take-back and recycling scheme for end of life modules.

### B. EPIA's Action

- Reply to the EC stakeholder consultation based on comments received from Members
- Quantitative data provided to the EC (DG Environment) based on the results of an EPIA survey among Members
- Information provided to consultants hired by the EC to assist in the preparation of its Impact Assessment, due to accompany the recast proposal

### C. Cooperation with PV Cycle.

### D. Outcome

- Publication by the EC of its proposal for a recast of RoHS on 3 December 2008
- EPIA welcomes the fact that PV products are not included among the binding list of products (Annex II) covered by the proposed RoHS recast

## 7. Third Energy Package

A Third Energy legislative Package was proposed on 19 September 2007 by the EC in order to pursue the liberalisation of the electricity (and gas) market. It included proposals for a directive concerning common rules for the internal electricity market, for a regulation on conditions for access to the network for cross-border electricity exchanges, and for a regulation establishing an Agency for the cooperation of energy regulators.

### A. EPIA's Objective

Follow up of the main developments through examination of the package of the EP and the Council (co-decision procedure).

### B. EPIA's Action

Monitoring of EP committees and Council conclusions.

### C. Outcome

- First reading in the EP on 18 June 2008: in favour of full "ownership unbundling" (of the generation and transmission of energy) which is in line with EPIA position
- Council common positions on 9 January 2009 on each piece of the package
- Currently under a second reading by the EP and Council



## 8. Mediterranean Solar Plan

The Mediterranean Solar Plan was announced on 13 July 2008 at the Paris Summit for the Mediterranean region. The objective was to reach 20 GW of new renewable energy capacities by 2020 in the region, out of which 3-4 GW would be covered by PV, 5-6 GW by wind and 10-12 GW by CSP.

### A. EPIA's Objective

Ensure that the potential of PV is taken fully into account in the Mediterranean Solar Plan.

### B. EPIA's Action

- Presentation of PV potential in a workshop organised in Berlin on 28 October 2008
- Participation in the Investors Conference on the Mediterranean Solar Plan on 22 November 2008
- Participation in the conference from the Observatoire Méditerranéen de l'Energie (OME) on 16-17 December 2008
- Data on PV generation costs in the Mediterranean region provided to the French government

### C. Outcome

- Data on PV generation costs in the Mediterranean region provided to the French government
- EPIA truly considered as a player in the Mediterranean Solar Plan



## 9. Climate Change negotiations

### A. EPIA's Objective

Strengthen the visibility of the PV sector at the high level negotiations on Climate Change.

### B. EPIA's Action

- Participation in the United Nations Framework Convention on Climate Change (UNFCCC) conference in Poznan, Poland in December 2008
- Organisation of a joint side-event with EREC and EWEA (European Wind Energy Association) in Poznan, December 2008
- Networking with stakeholders present in Poznan

### C. Outcome

According to official figures, over 11,000 participants from national delegations to industry and NGOs attended the event. PV applications were showcased in a very large exhibition hall. EPIA increased its knowledge of the Climate Change negotiations process, which it will build upon to enhance its visibility at the final round of negotiations of a post 2012 international agreement, in Copenhagen, Denmark in December 2009.

## 10. Other Policy Activities

### POLICY WORKING GROUP AND POLICY MEETINGS

EPIA Policy Working Group is composed of 104 EPIA Members who have expressed an interest in closely following EU policy matters and/or providing concrete input to EPIA Policy department activities. EPIA held 7 Policy Meetings in 2008. Agenda, presentations and list of participants of these meetings are available on the EPIA website.

At the EPIA Policy Meeting on 4 November 2008, sub-groups were created gathering Members willing to liaise with national associations and national governments or with a specific expertise related to: Buildings, Markets, SET Plan, Grid, Mediterranean countries. Members included in these sub-groups were invited to contribute actively to EPIA Policy department activities based on their expertise.

### POLICY UPDATES

EPIA sent regular Policy Updates (up to 5 per month) to its Members to inform them about the latest developments on policy topics mentioned below. In August 2008, EPIA changed the format of these electronic Policy Updates to make them more user-friendly. These updates are available on the EPIA website.

### INFORMATION TOURS

EPIA's Objective was to explain to EU decision-makers the manufacturing process of PV products in practice and extend EPIA network.

- **Visit of Sharp factory, UK, 16-17 April 2008:** participation of MEP assistants from the conservative, socialist, liberal and green parties, as well as three national representatives from Romania, Latvia and Austria, and representatives from EREC (European Renewable Energy Council) and EUFORES (European Forum for Renewable Energy Sources)
- **Visit of an Urbasolar photovoltaic roof, France, 19 September 2008:** within the frame of an information tour for the members of the Energy Working Party of the Council organised by the French Presidency of the EU, including a presentation by EPIA and SER (Syndicat des Energies Renouvelables)
- **Visit of Q-Cells manufacturing plant, Germany, 25-26 November 2008:** participation of MEP assistants from the conservative and socialist parties as well as a representative from the EC (DG Environment)

### EPIA WEBSITE – POLICY SECTION

EPIA added new sections to the EPIA website - Policy Area (Members only) such as: EU calendar, ETS (Emissions Trading Scheme), Mediterranean Solar Plan, Policy updates.

In addition, factsheets per country were elaborated upon and will be uploaded onto the EPIA website in 2009.

# 5

## EVENTS



→ EPIA ORGANISED TOP LEVEL EVENTS DURING THE COURSE OF 2008, GATHERING KEY STAKEHOLDERS OF THE PV INDUSTRY, EU DECISION MAKERS AS WELL AS PEOPLE FROM THE CONSTRUCTION SECTOR AND THE FINANCIAL COMMUNITY. THE ASSOCIATION ALSO PARTICIPATED IN IMPORTANT EVENTS IN REPRESENTATION OF THE PV SECTOR.

1. BIPV Conference (within the frame of the EUSEW 2008)	18
2. 2 <sup>nd</sup> International Conference on Solar Photovoltaic Investments	18
3. EPIA Annual General Meeting & French Photovoltaic Symposium (within the frame of the Solar event)	18
4. 23 <sup>rd</sup> EU PVSEC including the 5 <sup>th</sup> European PV Industry Forum	19
5. International Workshop on PV Building Integration	19
6. International Workshop on PV System Monitoring and Performance Assessment	19
7. 1 <sup>st</sup> EPIA International Thin Film Conference	20
8. COP 14	20

## 1. BIPV Conference: “BIPV – A market segment with huge potential”

(within the frame of the EUSEW 2008)

31 January 2008 - Brussels, Belgium

PV deployment is still low in building environment. The aim of the conference was to tackle the challenges that PV and building industries face and to outline the many ways of reducing energy consumption in buildings.

This conference was organised under the European Sunrise project and within the frame of the European Union Sustainable Energy Week (EUSEW). The EUSEW is coordinated by the EC with strong support from European associations involved in sustainability, environment and energy.

## 2. 2<sup>nd</sup> International Conference on Solar Photovoltaic Investments

19-20 February 2008 - Frankfurt, Germany

Almost 300 participants from 34 countries attended in the 2<sup>nd</sup> International Conference on Solar Photovoltaic Investments. The PV sector is the renewable energy business attracting the most investments today. The conference offered an ideal opportunity to review the main PV market trends and industry developments, to understand the specificities of solar PV technology and to explore the best instruments with which to finance both PV projects and companies. A perfect networking opportunity, this conference has contributed to improving collaboration between the financial and the PV sectors and to the sharing of knowledge.

## 3. EPIA Annual General Meeting & French Photovoltaic Symposium

(within the frame of the Solar event)

27 June 2008 - Aix-les-Bains, France

More than 500 major stakeholders of the European PV sector as well as French and international stakeholders participated in the EPIA Annual General Meeting combined with a National Photovoltaic Symposium which took place in France, within the frame of the “Solar event”.

The French Photovoltaic Symposium was organised by EPIA in partnership with the Agence de l'Environnement et de la Maîtrise de l'Énergie (ADEME), the Institut National de l'Énergie Solaire (INES), the Syndicat des Énergies Renouvelables (SER), ENERPLAN, HESPUL, with the support of the Conseil Général de Savoie, the Région Rhône-Alpes, Savoie Economic Agency and the city of Aix-les-Bains.



#### **4. 23<sup>rd</sup> EU PVSEC including the 5<sup>th</sup> European PV Industry Forum** 1-5 September 2008 - Valencia, Spain

Organised by WIP in close institutional collaboration with EPIA, this 23<sup>rd</sup> edition was the most important international event in the field of PV, providing an excellent platform for dialogue and information exchange across the world. The exhibition was the biggest ever held in the area of solar power generation, spreading over 45,000 sqm (30,000 sqm in 2007). The EPIA Industry Area featured many company presentations and workshops throughout the week and provided a central meeting point to gather with business partners and obtain information on EPIA and its partners.

The 5<sup>th</sup> European PV Industry Forum, organised jointly by EPIA and WIP on 3 September 2008, gathered more than 600 PV experts. Among the key note speakers, a special guest, Jeremy Rifkin, gave a lecture on the Third Industrial Revolution. Mr. Rifkin is President of the Foundation on Economic Trends, author of 17 best-selling books and key advisor to the EU on issues related to the economy, Climate Change, energy security and sustainable development.



#### **5. International Workshop on PV Building Integration** 30 October 2008 - Nice, France

Over 90 participants from the PV industry, architects, research and certification institutions, and other national and European organisations attended the International Workshop on PV Building Integration. Excellent insight was provided into the latest developments in the field of BIPV, including the current policy and market situation in Europe, an overview of the standardisation process for BIPV products, barriers for the introduction of PV into the building sector, the latest technologies and applications. This workshop was organised within the frame of the EU Performance Integrated Project in collaboration with the EU Sunrise project.

#### **6. International Workshop on PV System Monitoring and Performance Assessment** 31 October 2008 - Nice, France

More than 70 participants from the PV industry and the research community met to discuss the intermediate results of the Performance Integrated Project, in particular the Sub Project 3 (SP3) "Performance assessment and evaluation of PV systems". The rapid growth in PV installations requires new approaches in the measurement and assessment of system performance, moving from simple determination of initial system losses to lifetime monitoring and fault detection.

## 7. 1<sup>st</sup> EPIA International Thin Film Conference

13 November 2008 - Munich, Germany

Over 350 PV professionals gathered for the 1<sup>st</sup> EPIA International Thin Film Conference, a huge success which confirms the interest in this promising technology.

The objective of the 1<sup>st</sup> EPIA International Thin Film Conference was to present the state-of-the-art PV Thin Film and to offer an excellent opportunity to network with Thin Film's most knowledgeable experts. The conference provided an insight into global market trends, the latest technological achievements, successful investments in the sector and a full analysis of the product cycle.



## 8. COP 14

1-12 December 2008 - Poznan, Poland

The UNFCCC took place early December in Poznan, Poland. The conference was an intermediary step before the Copenhagen Conference at the end of 2009, which will define the future of global action against Climate Change after 2012 (end of the first phase of the Kyoto Protocol).

EPIA was present during the negotiations with a joint side-event with EREC and EWEA and represented the PV industry among international delegations and NGO representatives from all over the world. It was also an opportunity to prepare for our presence during COP 15 in Copenhagen.



# 6

## COMMUNICATION ACTIVITIES



→ THROUGHOUT 2008, EPIA CARRIED OUT A MULTITUDE OF COMMUNICATION ACTIVITIES. THESE INCLUDED THE DEVELOPMENT OF REFERENCE PUBLICATIONS ADAPTED FOR DIFFERENT PV STAKEHOLDERS, PROVIDING A DEDICATED INFORMATION PLATFORM AVAILABLE 24/7, THE DISTRIBUTION OF A REGULAR NEWSLETTER AND THE IMPLEMENTATION OF MANY PROMOTIONAL ACTIVITIES AND PARTNERSHIPS, AS WELL AS REINFORCED MEDIA RELATIONS.

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# 1. Publications

In 2008, EPIA produced numerous publications to raise awareness on PV technology and increase the visibility of the association.

## An argument for Feed-in Tariffs

January 2008

Overview of different support schemes and their characteristics showing that a Feed-in Tariff system is the most effective support to enable rapid development of PV markets.

## Creating conditions for Solar Photovoltaic to go large EPIA Round Table Conclusions

January 2008

Summary of the conclusions of EPIA Round-Table Cycle (May-November 2007).

## Global Market Outlook for Photovoltaics until 2012

February 2008

Presentation of the most recent and updated data regarding PV.

## Photovoltaic Energy: Electricity from the Sun

May 2008

General leaflet explaining to the widest audience what solar PV electricity is and what its benefits are. Published within the frame of European Solar Days 2008.

## BIPV - A New Design Opportunity for Architects

June 2008

Leaflet showing architects that Building Integrated Photovoltaics (BIPV) is feasible, varied and opens many creative opportunities.

## EPIA Annual Report 2007

June 2008

Presentation of EPIA's commitment, activities, challenges and successes in 2007.

## Become a member of EPIA

September 2008

Promotional leaflet explaining EPIA membership benefits.

## Solar Generation V

September 2008

EPIA and Greenpeace updated scenarios for PV development in the coming years and the conditions for their achievement.



## 2. Website

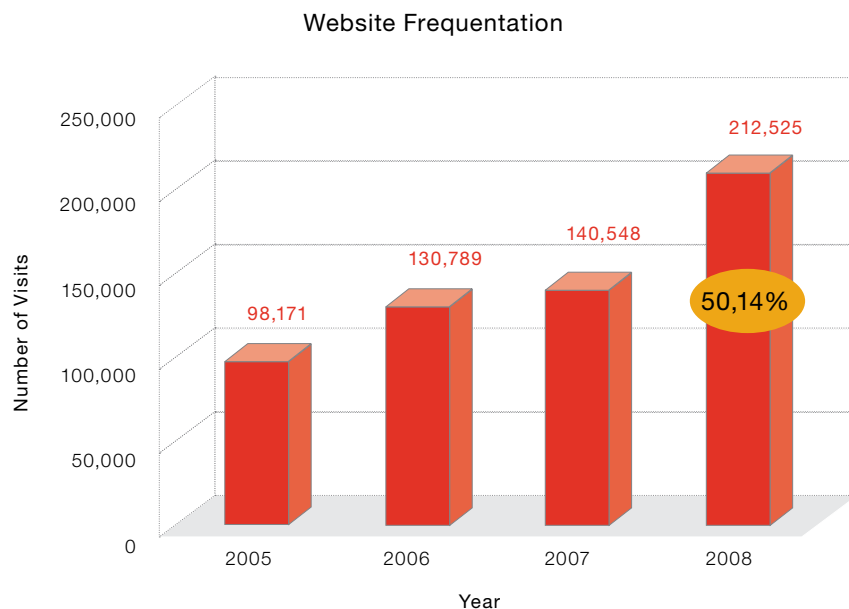
### More interactivity

The structure of the EPIA website has mirrored the evolution of the PV Industry in 2008. New sections were created and some new tools implemented in order to improve interactivity with our Members.

The Members Forum, launched in October 2008, now offers a unique opportunity to share documents and exchange views on proposed topics. It is exclusively reserved for EPIA Members and accessible from the Members Area once logged-in. Online surveys have also been conducted during the period, allowing Members to interactively vote on strategic decisions of the association.

### An increasing frequentation

In 2008, almost 18,000 people viewed around 62,400 pages every month, which represents a total of 212,525 visits and 748,804 pages views. The number of individual visitors increased by 56.15% compared with 2007, reaching a total of 142,627 people.



## 3. Solaris Newsletter

The Solaris monthly newsletter gives a regular overview on EPIA activities (policy, communication, events) and spreads messages and positions on important topics. It provides Members with policy, technology and market updates, as well as news from the PV sector.

In 2008, 10 editions were distributed to a data base of 15,000 contacts. The Members edition brings EPIA Members additional information on all relevant policy issues and strategic topics for the industry.



## 4. Promotion

### Strong media partnerships

In 2008, EPIA's presence in the media was reinforced through strong partnerships with many professional magazines. Advertisements and articles about EPIA events were published by a number of media partners including Energética, EnergyBiz, Energy Central, Energy.eu, Environnement Magazine, EnviScope, European Sustainable Energy Review, European Voice, Global Solar, GoingPublic Magazin, Le Journal des Energies Renouvelables, Neue Energie, New Energy, PV Magazine, PV Technology, RenewableEnergyStock.com, SolarZoom, Sun & Wind Energy, Technoscope, VentureCapital Magazin, WelcomEurope.com.

### Advertising the compelling benefits of PV

In order to highlight the compelling benefits of PV for the mitigation of Climate Change, an advertisement was published in the Climate and Energy Report of the European newspaper European Voice as well as in a special edition of RTCC Magazine (Responding to Climate Change) prior to the international negotiations on Climate Change in Poznan, Poland.



## 5. Media relations

In 2008, the EPIA press data base was enlarged to include around 2,000 contacts. 18 press releases have been issued, generating numerous articles in the press all over the world. Solar energy has made the front page in leading newspapers such as Le Monde (France) on 6 September 2009.

23/01/2008

European Commission proposal for a Directive on the promotion of the use of energy from renewable sources: a good starting point for the deployment of solar photovoltaic electricity by 2020.

28/01/2008

1<sup>st</sup> European Solar Days: European Citizens to Celebrate Solar Energy (EPIA/ESTIF).

04/02/2008

European Photovoltaic Industry Association appoints New Secretary General.

25/02/2008

Photovoltaic solar energy to attract major investments over the coming years.

10/04/2008

1<sup>st</sup> European Solar Days to be celebrated on 16 and 17 May.

15/05/2008

The first European Solar Days will be celebrated with over 4000 events throughout Europe.

28/05/2008

The photovoltaic industry welcomes Turmes draft report on the future directive on Renewable Energies.

06/06/2008

Solar Sector comes to the rescue of the French market.

12/06/2008

The Photovoltaic and the Battery Sectors recognise the key role of Energy Storage in the future development of photovoltaic power (EPIA/EUROBAT).

01/07/2008

Recommendations by French solar professionals to launch the national market.

04/07/2008

Ernesto Macias new EPIA President from 2008 until 2010.

29/08/2008

Photovoltaic industry urging the Spanish government to improve the future decree.

01/09/2008

Solar Energy can bring clean energy to over 4 billion people by 2030.

04/09/2008

Photovoltaic industry substantially revises its target to supply up to 12% of European electricity demand by 2020.

15/10/2008

Think Thin and Go Large! EPIA organises its first international Thin Film Conference.

18/11/2008

Thin Film goes large! For its first edition, the EPIA International Thin Film Conference gathers more than 350 industry professionals.

09/12/2008

Agreement on the European Renewable Energy Directive: a brighter energy future for Europe.

17/12/2008

Climate and Energy package adopted by the European Parliament - the targets are clear, now it's time for Member States to pull up their sleeves.

# 7

## PROJECTS



→ EPIA PARTICIPATES IN VARIOUS PROJECTS OF HIGH INTEREST FOR ITS MEMBERS AND THE PV SECTOR IN GENERAL. THESE PROJECTS DEAL WITH STANDARDS AND QUALITY MEASUREMENT, NETWORK AND BUILDING INTEGRATION, RESEARCH AND MARKET DEVELOPMENT.

1. Performance Integrated Project	26
2. Sunrise Project	26
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4. RESTMAC	26
5. PV Employment	26

## 1. Performance Integrated Project

**Objective:** Provide the PV community and standardisation institutions (IEC, CENELEC) with tools to accurately measure the quality of products - devices, systems and services - to ensure their usefulness and reliability, and to deliver data to predict the lifetime use of products and their behaviour. It will cover all relevant aspects from cell to system level and from instantaneous device characterisation and system measurements to life-time performance prediction and assessment. EPIA facilitates cooperation between the research and the industry communities and coordinates the dissemination of results.

**Duration:** January 2006-December 2009.

**Partners:** 28 partners representing some of the most experienced companies, European research centres and universities (see project website for more information).

**Project website:** [www.pv-performance.org](http://www.pv-performance.org)



## 2. Sunrise Project

**Objective:** Enhance cooperation with important stakeholders such as the building sector, architects, electrical installers and utilities to facilitate the introduction of PV in built environments and network integration.

**Duration:** May 2007-November 2009.

**Partners:** EPIA (project coordinator), UIA-ARES (International Union of Architects), AIE (Association of Electrical Contractors), FIEC (European Construction Industry Federation), WIP (Wirtschaft und Infrastruktur GmbH & Co Planungs-KG) and EDF.

**Project website:** [www.pvsunrise.eu](http://www.pvsunrise.eu)



## 3. PV SEC

**Objective:** Support the activities of the Secretariat of the European Photovoltaic Technology Platform by organising meetings and the General Assembly (once a year), realising publications and disseminating the results of the Platform.

**Duration:** July 2005-June 2009.

**Partners:** EPIA (coordinator), EUREC-Agency, DG Joint Research Centre (EC), WIP.

**Project website:** [www.eupvplatform.org](http://www.eupvplatform.org)



## 4. RESTMAC

**Objective:** Create Markets for Renewable Energy Technologies. The project aims to develop and implement a concise, well-targeted and thematic approach to ensure the dissemination and uptake of selected RES technologies in the market. This will principally be achieved through a technology marketing campaign for the involvement of different RES technologies.

**Duration:** January 2006-November 2008.

**Partners:** EREC (coordinator), AEBIOM, EGEC, EPIA, ESHA, ESTIF, EUBIA, EWEA, Energy Centre Bratislava, ADEME, National Technical University of Athens and Gaia.

**Project website:** [www.erec.org/projects/ongoing-projects/restmac.html](http://www.erec.org/projects/ongoing-projects/restmac.html)



## 5. PV Employment

**Objective:** Quantify and qualify job creation within the PV sector. The project aims to figure out how many jobs will be created by the expanding European PV industry in terms of direct and indirect jobs in the production, installation and maintenance of PV. The progress of the work of this project has been delayed especially due to the difficulty to collect industry data. Considering the importance of the potential results of the project, the scope of the project has been extended.

**Duration:** under discussion.

**Partners:** EPIA (coordinator), WIP, UFL (University of Flensburg), NTUA (National Technical University of Athens), ETUC (European Trade Union Confederation).



# 8

## PARTNERSHIPS



→ EPIA HAS DEVELOPED VARIOUS PARTNERSHIPS OF HIGH INTEREST FOR ITS MEMBERS AND THE PV SECTOR IN GENERAL. THESE PARTNERSHIPS DEAL MAINLY WITH **RESEARCH, ELECTRIFICATION IN DEVELOPING COUNTRIES, TAKE-BACK AND RECYCLING** OF PV MODULES AS WELL AS **ENVIRONMENTAL HEALTH AND SAFETY** ISSUES. THE ASSOCIATION HAS ALSO DEVELOPED STRONG PARTNERSHIPS DEDICATED TO **PROMOTING RENEWABLE ENERGY SOURCES** AS A WHOLE.

1. European Photovoltaic Technology Platform	28
2. ARE	28
3. PV CYCLE	28
4. EREC	28
5. IEA-PVPS	29
6. EUFORES	29

## 1. European Photovoltaic Technology Platform

The European PV Technology Platform is a European initiative which aims at mobilising all actors sharing a long-term European vision for PV to realise the European Strategic Research Agenda for PV for the next decade(s) and give recommendations for its implementation, and to ensure that Europe maintains industrial leadership. EPIA is the coordinator for the Secretariat of the EU PV Technology Platform.

More information at: <http://www.eupvplatform.org>



## 2. ARE

ARE (Alliance for Rural Electrification) is an international non-profit organisation co-founded by EPIA in 2006 along with the other most important European renewable energy industry associations. They currently gather more than 30 companies and actors from the renewable energy world.

ARE promotes and provides renewable solutions for rural electrification in developing countries. Their objectives are: to attract and unite all relevant actors in order to speak with one voice about rural electrification through renewable energies, to generate technical and financial solutions concerning rural electrification in developing countries, to communicate and advocate for rural electrification using RES and to assist its members in the field of CSR (Corporate Social Responsibility) projects.

More information at: [www.ruralelec.org](http://www.ruralelec.org)



## 3. PV CYCLE

PV CYCLE is an association co-founded by EPIA in July 2007, which is dedicated to the setting-up of a voluntary take-back and recycling programme for end-of-life modules and for taking responsibility for PV modules throughout their entire value chain. Its aim is to promote the protection of the climate and the environment by encouraging increased use and sustainability of PV technology. PV CYCLE intends to implement an overall waste management and recycling policy for the industry which guarantees the highest economically feasible collection and recycling rates as well as appropriate treatment of end-of-life PV modules.

More information at: [www.pvcycle.org](http://www.pvcycle.org)



## 4. EREC

EREC (European Renewable Energy Council) is an association co-founded by EPIA. It gathers all European Renewable Energy Sources (RES) associations under a single umbrella. EREC is very active at the European level in promoting adapted policy frameworks. EPIA is actively working with EREC to promote the RES industry's position on the future of the renewable energy sector. EREC is promoting consensual positions among all its members towards the key decision makers including the EP, European Council and EC.

More information at: [www.erec.org](http://www.erec.org)



## 5. IEA-PVPS

The Photovoltaic Power Systems programme (PVPS) is a collaborative R&D Agreement, established within the frame of the International Energy Agency (IEA), conducting projects on the application of solar PV electricity. IEA-PVPS operates worldwide via a network of national teams in member countries.

EPIA is member of IEA-PVPS since 2005. Under the IEA-PVPS, several international working groups (so called Tasks) are in operation to cover all R&D and market topics of interest for the PV community. EPIA is particularly active within the following tasks: Task1-“Exchange and dissemination of information on PV power systems”, Task2-“Performance, reliability and analysis of PV systems”, Task12-“PV Environmental Health and Safety (EHS) issues” (EPIA leads this task, which will last 5 years up until 2011, together with the Brookhaven National Laboratories, New-York, USA).

More information at: [www.iea-pvps-task12.org](http://www.iea-pvps-task12.org) and [www.iea-pvps.org](http://www.iea-pvps.org)



## 6. EUFORES

European Parliamentarians for a Sustainable Energy Future

EUFORES (European Forum for Renewable Energy Sources), founded in 1995, is an independent, non-profit organisation, which aims to promote the further deployment of renewable energy and energy efficiency. It is a European parliamentary network with MEPs as well as members of EU Member States national parliaments.

It has developed an intense institutional network at EU and national levels and is one of the driving forces in the renewable energy sector. As part of its efforts, EUFORES organises regular Inter-Parliamentary meetings on renewable energy and energy efficiency, advises on policy, disseminates up to date information to its members and promotes beneficial legislation in the fields of renewable energy and energy efficiency.

More information at: [www.eufores.org](http://www.eufores.org)



# 9

## FINANCIAL REPORT 2008



→ OVER RECENT YEARS, EPIA HAS EXPERIENCED A VERY DYNAMIC GROWTH. THIS HAS LED TO A STEADY INCREASE IN TURNOVER. FROM 2006 TO 2008, EPIA TURNOVER INCREASED BY 250%. 2008'S INCOME INCREASED BY 49% COMPARED WITH 2007. IN 2008, EPIA EXECUTED 109% OF ITS PLANNED REVENUES.

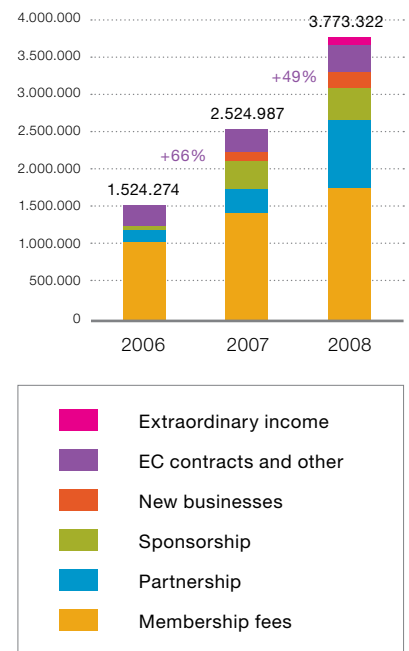
1. An exceptional year	31
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## 1. An exceptional year

2008 was an exceptional year for EPIA due to a tight control of all budgetary elements. This was reflected in the figures that show an increase on the income side while the expense side was kept in line with the budget. Due to the good control of the budget, EPIA had the opportunity to self-finance 70% of the Study Phase of the SET For 2020 strategic initiative which has created considerable value to EPIA Members.

**Chart 1: Evolution of turnover and financing structure 2006-2008**

**Chart 1: Evolution of turnover and financing structure 2006-2008**



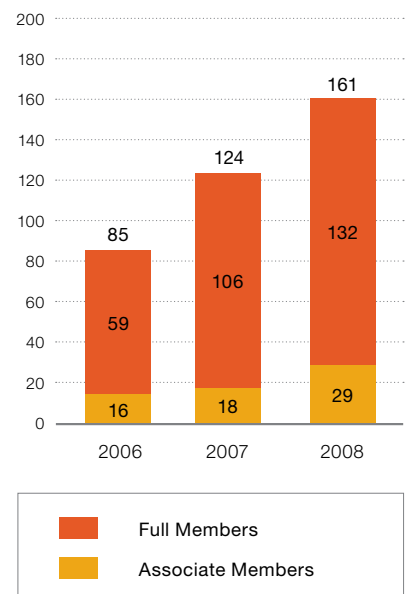
## 2. Membership Fees

During 2008, there was a significant increase in the number of Members (see chart 2). Between the AGMs in 2007 and 2008, 37 companies and organisations joined EPIA. At the end of 2008, EPIA was able to count 190 Members, 154 of which Full Members and 36 Associate Members.

Thanks to the significant increase in the number of Members, the contribution of membership fees to 2008's turnover reached almost 1,8 million Euros. If we compare it with 2007 and 2006 contributions, we can remark that membership contribution in 2008 was 23% higher than in 2007 and 60% higher than in 2006. Membership fees represented almost 47% of 2008's total income. It should be underlined that EPIA was able to successfully meet membership target in 2008, even though the industry was marked by initial signs of consolidation.

**Chart 2: Evolution of number of EPIA Members 2006-2008**

**Chart 2: Evolution of number of EPIA Members 2006-2008 (status on day of AGM)**



## 3. Non-membership related sources of financing

Taking into account the increase in activities, the Board had to find new external sources of financing. From 2006 to 2008, non-membership related sources of financing increased 4 times from 0,4 Million Euros to 2 Million Euros in 2008 (see chart 3). In 2008 alone, EPIA increased these sources of financing by 83%. These sources of financing constituted 43% of the total income in 2007 against 53% in 2008.

**Chart 3: Non-membership financing 2006-2008**

### Sponsorship

The very successful sponsorship concept resulted in an increase of 20% in revenue from this source of financing compared with 2007 (see chart 3). In addition, sponsorship support from companies was diverse, with 26 companies becoming sponsors of EPIA activities in 2008.

### Partnership

In this category there was also a significant increase of more than 100% in 2008 compared to 2007. EPIA established a long-term cooperation with WIP, the Organiser of the European PV Solar Energy Conference and Exhibition (EU PVSEC), and became the Institutional PV Industry Collaborator with WIP. This agreement translated into a significant income source for EPIA's budget in 2008. Importantly, EPIA Members were granted a 10% discount on exhibition space and a prime position at the 23rd EU PVSEC - the world's largest PV solar event. In 2008, EPIA also succeeded in getting considerable financial support for the organisation of the French Photovoltaic Symposium, the largest PV event ever held in France.

## Registration fees for EPIA events

Looking to self-finance events, EPIA began to include entrance fees. In 2008, we successfully reached this self-financing and this is particularly true of events such as 1st EPIA International Thin Film Conference, where we totally recovered the invested money, the French Photovoltaic Symposium and 2nd International Conference on Solar Photovoltaic Investments. In 2008, EPIA income from entrances fees increased by 47% compared with 2007.

## 4. EC contracts and others

EC contracts and others are constant over the years. In 2008, we registered an increase of 23% compared with 2007. Their share over EPIA's total income is around 10%.

## 5. Extraordinary items

EPIA undertook the SET For 2020 Study as a major unplanned and exceptional activity. Due to the good control of the budget, EPIA had the opportunity to self-finance 70% of the Study Phase of the SET For 2020 strategic initiative which has created considerable value to EPIA Members.

## 6. EPIA activities – central to EPIA expenditures

A comparison of EPIA 2007 vs. 2008 costs shows that more than 50% of EPIA's budget in 2008 was dedicated to policy and communications activities (see chart 5). Looking at the structure of costs for 2008, we see that it includes extraordinary items composed mainly of SET For 2020 Study Phase (see chart 4). In 2008, 42% of the budget was spent on all fixed costs against 45% in 2007 (see chart 5).

**Chart 4: Evaluation of expenses 2007-2008**

**Chart 5: Expenses breakdown 2007-2008 (%)**

## 7. Financial Control

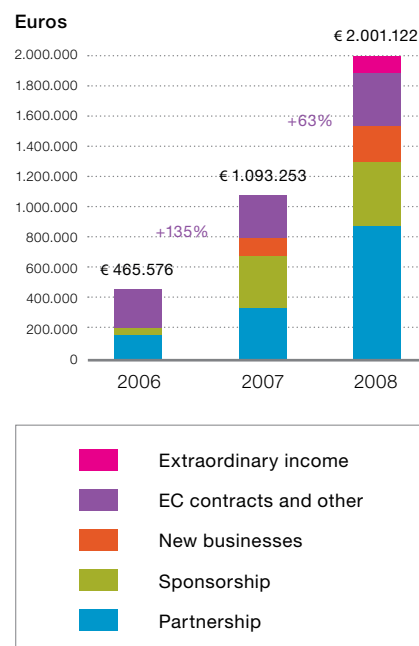
In order to improve financial control and increase transparency, the budget and accounts have been controlled by the Accounting Committee (Anton Milner and Christian Langen). The Committee presented its recommendations to the Board who thereafter took their final decision regarding EPIA's budget and accounts.

The accountancy analytic system has proved its usefulness; it has been in use since 1 January 2007. It allowed the Financial and Administrative Department to submit regular analyses of the financial situation and to compare the current accounts with the planned budget for final verification of the Board.

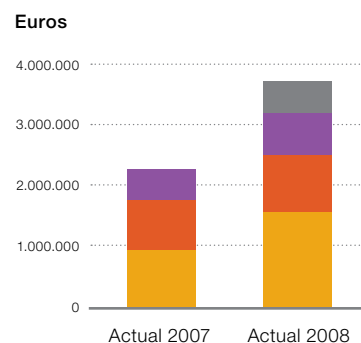
The Auditor appointed by the Board, in accordance with Art. 25 of EPIA's statutes, has been controlling the accounts on a regular basis and submitted two reports from the audit of EPIA accounts to the Board in 2008.

EPIA aims to continue increasing its activities and corresponding budget for the benefit of its Members in the whole PV industry community.

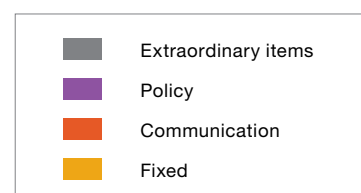
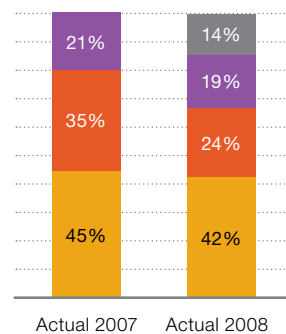
**Chart 3: Non-membership financing 2006-2008**



**Chart 4: Evaluation of expenses 2007-2008**



**Chart 5: Expenses breakdown 2007-2008 (%)**



# 10

## STRUCTURE AND MEMBERS



1. Board of Directors	34
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3. New Members	37
4. List of EPIA Members as of March 2009	41

# 1. Board of Directors

## President 2006-2008 and President ad interim

**Dr. Winfried Hoffmann**  
Applied Materials,  
Chief Technology Officer



## President June-October 2008

**Ernesto Macias Galan**  
**Formerly:** Isofoton - General Director of  
Communications & Institutional Relations  
**Currently:** Electria - General Manager



On 7 October 2008, Ernesto Macias left the company Isofoton and, in full respect of EPIA statutes, he decided to step down as a Board Director. In replacement of Ernesto Macias, Ignacio de Colmenares, CEO of Isofoton, has been co-opted by the Board of EPIA to join it as a Director until the AGM on March 19 2009. During this period, Dr. Winfried Hoffmann, CTO of Applied Materials, has been President ad interim.

## Vice-Presidents

**Dr. Murray Cameron**  
Phoenix Solar AG,  
Chief Operating Officer



**Boris Klebensberger**  
SolarWorld AG,  
Chief Technology Officer



## Directors

**Günther Cramer**  
SMA Technologies AG,  
Member of the Management  
Board



**Michael Harre**  
SCHOTT Solar GmbH,  
Managing Director



**Christian Langen**  
Sovello AG,  
Chief Sales and Marketing  
Officer



**Ignacio de Colmenares**  
Isofoton,  
Chief Executive Officer



**Anton Milner**  
Q-Cells AG,  
Chief Executive Officer



## 2. Secretariat

**Adel El Gammal**  
Secretary General



### Policy Department

**Eleni Despotou**  
Policy Director  
Deputy Secretary General



**Denis Thomas**  
Economist



**Daniel Fraile Montoro**  
Scientific Officer



**Eirini Litina**  
Policy intern



**Florence Limet**  
Policy Adviser



### Communication Department

**Sophie Lenoir**  
Marketing & Communication  
Manager



**Marie Latour**  
Deputy  
Communication Manager



**Benjamin Fontaine**  
Junior Communication  
Officer



**Michel Bataille**  
IT Manager



**Kinga Timaru-Kast**  
Project Manager Marketing  
& Communication



**Ana Costache**  
Communication Intern



### Finance and Administration Department

**Georgina Costa Vaz**  
Financial & Administrative  
Manager



**Emmanuelle Lenain**  
Membership Manager



**Pietro Caloprisco**  
Business Development Manager



**Patricia Philbin**  
Assistant



**Betsy Savelkoul**  
Assistant





From left to right: Tomasz Slusarz (until September 2008 - PL), Pietro Caloprisco (IT), Denis Thomas (BE), Florence Limet (FR), Daniel Fraile Montoro (SP), Georgina Costa Vaz (PT), Emmanuelle Lenain (FR), Kinga Timaru-Kast (DE-HN), Eleni Despotou (GR), Adel El Gammal (BE), Ana Costache (BE), Sophie Lenoir (FR), Benjamin Fontaine (FR), Patricia Philbin (IR), Eirini Litina (GR), Betsy Savelkoul (BE), Michel Bataille (BE). Missing: Marie Latour (FR)

## External consultants

**Danny Chabert**  
Financial Auditor



**Olivier Daxhelet**  
Accountant



## They left in 2008

**Michael Annett**  
Project Assistant



**Pietro Radoia**  
Financial and Administrative Assistant



**Tomasz Slusarz**  
Financial and Administrative Manager



**Alda Trisdawidyani**  
Communication Assistant



**Enrico Portelli**  
Communication Intern



**Giorgio Vitali**  
Policy Intern



### 3. New Members

Since last Annual Report (June 2008), 43 new Members have joined EPIA. Here is a short overview of these companies/associations.



<p><b>APESF</b> Mrs. Birgit Herbers birgit.herbers@apesf.com + 351 916 601 717</p>	<p><b>Associação Portuguesa de Empresas de Solar Fotovoltaico</b> - The Portuguese Association of Companies in the PV sector is a newly non profit founded entity. Its main objective is the promotion and development of the PV energy market in Portugal.</p>
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<p><b>APISOLAR</b> Mrs. Maria João Rodrigues apisolar@apisolar.pt + 351 219 260 920 <a href="http://www.apisolar.pt">www.apisolar.pt</a></p>	<p><b>Associação Portuguesa da Industria Solar</b> - Created in 1998, the Portuguese Solar Industry Association, APISOLAR, was the first and is still the only national association promoting both the solar thermal and the PV sectors in Portugal. APISOLAR is actively promoting the solar industry close to the relevant Portuguese policy-making bodies and is accordingly cooperating in shaping market deployment policies. APISOLAR members range from manufacturers, to retailers and installers, therefore widely representing the solar sector and its interests. APISOLAR aims at increasingly assisting the business development of its members, nationally and internationally, namely through participation in fairs and conferences.</p>
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<p><b>Arkema France</b> Mr. Bernard Schlinquer bernard.schlinquer@arkemagroup.com +33 1 49 00 81 78 <a href="http://www.arkema.com">www.arkema.com</a></p>	<p><b>Arkema</b> offers a range of polymers and films that are ideally suited for uses in PV solar panels: Evatane® EVA resins are highly transparent and broadly used to encapsulate PV silicon and CdTe cells, highly transparent Altuglas® PMMA is ideally suited for top covers and Fresnel lens concentrators, while Kynar® film has become a reference for very glossy and highly durable back sheets. Arkema's Kynar® film, based on Kynar® PVDF polymer, offers a unique combination of characteristics: absolute UV and moisture resistance, high barrier properties, colour stability and very high reflectance conferring long durability and higher yield PV panels. Due to its UV resistance and light transparency, unpigmented Kynar® film can also be used as front sheets of PV panels.</p>
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<p><b>Asociación Empresarial Fotovoltaica</b> Mr. Juan Laso info@aefotovoltaica.com +34 917 432 631 <a href="http://www.aefotovoltaica.com">www.aefotovoltaica.com</a></p>	<p><b>AEF</b> is formed by the major Spanish companies in the PV sector. It aims at promoting the profile of the PV energy and its perception by the general public, investors and public institutions. AEF complements the work currently carried out by other institutions. It is a meeting point for the principal actors in the Spanish PV market. AEF collaborates with other Associations, Energy Agencies, etc.</p>
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<p><b>Avancis GmbH &amp; Co. KG</b> Jaap.vandenburgt@avancis.de +49 34 21 73 88-0 <a href="http://www.avancis.de">www.avancis.de</a></p>	<p><b>AVANCIS</b> develops, produces and markets solar power modules based on advanced CIS technology. AVANCIS combines Shell CIS technology expertise, aided by eight years of commercial manufacturing in California, with Saint-Gobain's global and in-depth knowledge in glass processing and production of building materials. The first AVANCIS module production facility is located in Germany.</p>
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<p><b>Blue Chip Energy GmbH</b> Mr. Wolfgang Weidinger office@bluechip-energy.at +43 33 22 44 440-740 <a href="http://www.bluechip-energy.at">www.bluechip-energy.at</a></p>	<p>Production of:</p> <ul style="list-style-type: none"> <li>- monocrystalline solar cells</li> <li>- wafer are pseudo square 6" (156 x 156mm)</li> <li>- efficiency is 18-18,5%</li> </ul>
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<p><b>BG Solar Panels Ltd</b> Mr. Velislav Pavlov bgsolar@gmail.com +359 88 88 65 426</p>	<p><b>BG Solar</b> produces PV modules using 6" mono- and multicrystalline cells. Their capacity is 10 MWp/year. All raw materials are from well-known suppliers. BG Solar also produces BIPV modules and Insulating Glass Units with incorporated BIPV laminates.</p>
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<p><b>CNPV</b> Mr. B. Veerajay Chaudary chaudary@cnpv-power.com +86 546 77 95 555</p>	<p><b>CNPV</b> is a well recognised manufacturer of high quality terrestrial PV modules and has a long history as a solar PV pioneer since being founded in 1999 as a system installation company in China. CNPV is backed by a number of well recognised investors and has contributed to the recent successful Initial Public Offering (IPO) within the Alternext of Paris in NYSE Euronext.</p>
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<p><b>Concentrix Solar GmbH</b> Hansjörg Lerchenmüller contact@concentrix-solar.de +49 (0)761 214 108 0 <a href="http://www.concentrix-solar.de">www.concentrix-solar.de</a></p>	<p><b>Concentrix</b> offers turnkey CPV utility scale power plants for sunny locations. Concentrix sells either directly turnkey power plants or it sells all components for building such power plants. Concentrix coordinates project development and installation of power plants and offers control &amp; monitoring of the system. Moreover Concentrix offers possibilities for investment in completed power plants.</p>
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<p><b>Edora Asbl</b> Mrs. Anabelle Jacquet info@edora.be +32 2 217 96 82 <a href="http://www.edora.be">www.edora.be</a></p>	<p><b>Edora</b> is the Belgian renewable Energy Federation: lobbying for PV development in Belgium.</p>
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Edwards LTD	<p><b>Edwards LTD</b> Mr. Miles Firth miles.firth@edwardsvacuum.com +44 12 93 60 34 51 <a href="http://www.edwardsvacuum.com">www.edwardsvacuum.com</a></p>	<p>Leading global provider of vacuum and abatement equipment to the PV sector. Their unrivalled expertise is based on substantial experience with the semiconductor and other industrial sectors.</p>
	<p><b>Electria, S.A</b> Mr. Ernesto Macias Galan e.macias@anitec.es +34 91 142 63 34</p>	<p><b>ELECTRIA</b> is a new industrial company based in PV and other RREE technologies. The share-holders are members of the board, a group of experienced professionals in the field, together with the Andalusian Government and relevant actors from the global energy industry. They focus on developed and developing countries. In the PV sector, they will shortly build or buy two factories for CS cells and modules, and TF in Spain.</p>
	<p><b>Enel.si srl</b> Mr. Fabrizio Bonemazzi fabrizio.bonemazzi@enel.it +39 06 83 051 <a href="http://www.enelsi.it">www.enelsi.it</a></p>	<p><b>Enel.si</b> is a company fully-owned by Enel SpA, Renewable Energies Division. It offers Renewables (PV, Solar thermal, Mini-Wind) and efficiency focused services to the market. Enel.si is involved in the following PV activities: turn key systems, including small PV plant and large scale solar parks, R&amp;D activities on state-of-the-art PV technologies, helping developing PV distributed generation and domestic PV industry. Enel.si operates with a highly-qualified franchising installer network and a central engineering unit for large plants.</p>
	<p><b>Energie Facteur 4</b> Mr. Philippe Delaisse ef4@ef4.be +32 1 02 37 000 <a href="http://www.ef4.be">www.ef4.be</a></p>	<p><b>EF4</b> is promoting renewable energy, both on the supply and demand sides. EF4 is designed as a "facilitator" for the Walloon region regarding PV and heat pumps technologies. In this role, EF4 aids the development of these technologies in Wallonia in the most harmonised way.</p>
	<p><b>Etrion SA</b> Mr. Marco Antonio Northland info@etrion.ch +41 22 715 20 90 <a href="http://www.etrion.ch">www.etrion.ch</a></p>	<p><b>Etrion</b> develops, owns and operates large scale power plants in the renewable energy sector focusing on PV, solar thermal &amp; wind technologies.</p>
	<p><b>EWE - Research Center for Energy Technology e. V. - Next Energy</b> Dr. Karsten von Maydell Karsten.von.maydell@ewe-next-energy.de +49 441 99 906 210 <a href="http://www.ewe-next-energy.de">www.ewe-next-energy.de</a></p>	<p><b>Next Energy</b> is an application oriented, non-profit research institute focusing on Thin Film PV, fuel cells and energy storage. Members of the association include EWE AG, University Oldenburg and the state of Lower Saxony. Next energy receives significant support from the EWE AG. The division of PV is focused on Thin Film silicon PV and specialised on mikromorph technology.</p>
	<p><b>Exel Group S.A.</b> Mr. Pashalis Kirkos pkirkos@exelgroup.gr +30 23 10 72 25 36 <a href="http://www.exelgroup.gr">www.exelgroup.gr</a></p>	<p><b>Exel Group S.A.</b>'s new venture is the establishment of Exel Solar and a 70MWp PV module production plant, designed and supplied by Racell A.S. The plant will be ready to operate in the first Quarter of 2009. The 70MWp PV production plant will facilitate high quality PV modules of both standard and custom made panels along with mounting structures, and OEM services. Exel Solar's objective is to become the leading solar manufacturer in Southern Europe, Middle East, Cyprus, and the Gulf region.</p>
	<p><b>Financenergy S.A.</b> Mr. Jan Zandboer info@fin-energy.com +34 95 25 68 006 <a href="http://www.fin-energy.com">www.fin-energy.com</a></p>	<p>Financing and development of PV projects in Europe. Currently active in Spain and Italy, but expanding rapidly. Also active as venture capitalist for innovative technologies and enterprises in solar energy worldwide.</p>
	<p><b>Günter Spelsberg GmbH + Co. KG</b> Mr. Martin Lütgens mlu@spelsberg.de +49 23 55 89 22 65 <a href="http://www.spelsberg.de">www.spelsberg.de</a></p>	<p><b>Günter Spelsberg GmbH</b> is an international operating enterprise with more than 400 employees in our headquarters and our second factory in Thuringia. For more than 20 years Spelsberg has developed and produced connecting systems for PV f.e. junction boxes for PV modules and housing with DC circuit breakers. We develop custom solutions in close cooperation with our clients.</p>
	<p><b>Gaz de France</b> <a href="http://www.gazdefrance.com">www.gazdefrance.com</a></p>	<p>Renewable forms of energy are clean and diverse sources of energy. For <b>Gaz de France</b>, they are a means of being accountable towards the environment, as well as ensuring long-term secure supplies and cutting energy costs. The Gaz de France Group is developing its green electricity generating capacity as well as offering service packages which comprise a combination of renewable energy and traditional energy forms such as natural gas. Gaz de France is involved in the PV business with some of its subsidiaries and project development activities.</p>



**Heliosphera**  
 info@heliosphera.com  
 +30 21 06 41 20 09  
 www.heliosphera.com

The main activity of **HelioSphera** (formally known as Next Solar) is the production of Thin Film PV panels, with an annual capacity of 60 MW, using Oerlikon's micromorph technology. This high-tech investment enjoys significant R&D potential in cooperation with the country's University Institutions and other European technology institutions. The company is working closely with the Thin Film technology department of Patras' University. In the new production plant near Tripoli (Greece) with a clean room of over 1500 m<sup>2</sup> and constant climate control, efficient micromorph Thin-Film modules are manufactured according to the highest standards. With a capacity of 60 MW, the plant delivers more than 500,000 modules yearly with dimensions of 1.30m x 1.10m. 180 highly trained employees from all over the world ensure an international quality standard. Micromorph modules by HelioSphera deliver an outstanding performance even with low light situation, partial shading or higher temperatures. That means: above average energy yields and an increased return on investment.



**Juwi Solar GMBH**  
 Mr. Christian Hinsch  
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 www.juwi.com

**Juwi Solar** is developing, financing, building and operating solar power plants of all sizes. In more than ten years Juwi has gathered outstanding experience with more than 800 PV projects on rooftops and in open-space installations (total capacity: > 200 MW). Strategic partnerships with major component suppliers ensure that every new project is designed and installed with cutting edge technology.



**Komax Holding AG**  
 Mr. Walter Nehls  
 walter.nehls@komaxgroup.com  
 +41 41 45 50 795  
 www.komaxgroup.com

**Komax** is a global supplier of module manufacturing machines. By investing continuously Komax has expanded its product portfolio significantly in recent years. Today the company covers the entire spectrum from individual processes such as stringing to the integration of entire production lines. Finally, Komax offers professional service back-up in over 50 countries.



**Luvata Pori Oy**  
 Dr. Petri Konttinen  
 petri.konttinen@luvata.com  
 +358 2 626 66 82  
 www.luvata.com

**Luvata** provides and furthermore develops string- and tabwire: Sunwire™. Sunwire™ is a copper-based, tin-alloy plated flat wire, used to create high performance connections to the silicon and Thin Film cells and modules.



**Masdar PV GmbH**  
 Dr. Rainer Gegenwart  
 rgegenwart@masdarpv.com  
 +49 361 66 36 92 0  
 www.masdarpv.com

Production of large area Thin Film PV modules. German site operational late 2009, Abu Dhabi site in 2010. Total capacity 165–210 MWp. Fast plant expansion on both sites in preparation.



**Metalkraft AS**  
 Mr. Ronny Schumann  
 Ronny.schumann@metalkraft.no  
 +47 90 52 63 78  
 www.metalkraft.no

**Metalkraft AS** offers solutions for recycling spent slurry from the wafer cutting process. At present they have factories in Kristiansand (Norway) and Yangzhou (China). In addition, they have a third factory being built in Singapore to be opened in April 2010. Metalkraft's unique technology converts spent slurry into high quality silicon carbide and glycol that can be reused by the wafer manufacturer. The by-products are valuable raw materials for the building, steel and refractory industries.



**Mitsubishi Heavy Industries, Ltd.**  
 Mr. Felipe Barragán Pérez  
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 www.mhi.co.jp/en

Amorphous and Micromorph Tandem Thin-Film PV module manufacturer.



**Mitsui Chemicals Europe GmbH**  
 Mr. Julien Buisson  
 julien.buisson@mcie.de  
 + 49 211 173 3246  
 http://eu.mitsuichem.com/index.htm

**Mitsui Chemicals Europe GmbH** provides services through a communication network with its parent company, Mitsui Chemicals Inc. with a focus on market development of specialty products. Under the global strategy of its parent company, Mitsui Chemicals Europe GmbH continuously contributes and supports customers with innovative and competitive technologies and products, while preserving harmony with the environment.



**Racell Solar**  
 Mr. Bertrand Dubois  
 racell@racell.com  
 +45 33 25 96 45  
 www.racell.com

First producer of solar cells in Scandinavia in 1989, and solar modules in 1984. Producer of cells and modules for several telecom systems in harsh climates from Greenland to Peru. Developer and installer of prize winning architectural PV systems in Scandinavia. Supplier of PV module factory lines to various countries. Inventor of new QC systems for production lines. R&D for new materials and processes for the solar industry.















**Riello Ups Helios Power**  
 Mr. Lorenzo Spadoni  
 info@riello-ups.com  
 + 34 96 352 52 12  
 www.riello-ups.com/heliospower

Since 2004 **Riello Ups Helios Power** has been developing PV inverters for grid-connected applications. We are proud to say that we have more than 100 MW installed inverters and due to this fact, Riello Ups Helios Power has a leading position in the Italian and Spanish markets. We are present in each segment of the solar market and we provide solutions for roof-top installations to large solar parks. Given our ability to offer a wide range of solar inverters and since this year we are introducing our new HP 250, we are now entering other important and demanding markets such as France and Greece.



**Schunk Kohlenstofftechnik Group**  
 +49 641 608 19 74  
 www.schunk-group.com

Founded in 1913, **Schunk Kohlenstofftechnik Group** now has 1.200 employees, 5 business units and 20 subsidiaries. Main PV activity: Graphite and carbon composites for the manufacturers of polysilicon and monosilicone.

	<p><b>Siliken, S.A.</b> Mr. Rafael Diranzo rafa.diranzo@siliken.com +34 902 41 22 33 <a href="http://www.siliken.com">www.siliken.com</a></p>	<p><b>SILIKEN</b> is a group of companies specialised in the renewable energy sector. It is present in Spain, USA, Italy, France and Germany. Currently, our activities focus mainly on turn-key projects, the manufacture of PV equipment and manufacturing electronic grade silicon to allow for vertical integration of the entire PV production process.</p>
	<p><b>SNEIA</b> Mrs. Mi Yue miyue@sneia.org +86 21 64 38 07 81 <a href="http://www.sneia.org">www.sneia.org</a></p>	<p><b>Shanghai New Energy Industry Association:</b> Information and technology exchanges, technical advice, project application, quality appraisal, marketing services, education and training and exhibition affairs.</p>
	<p><b>Solar Academy</b> Mr. Elbert-Jan Achterberg info@solaracademy.nl +31 224 56 42 36 <a href="http://www.solaracademy.nl">www.solaracademy.nl</a></p>	<p>The <b>Solar Academy</b> provides theoretical and practical training to engineers, operators and managers working in solar cell manufacturing. Practical training takes place on a state-of-the-art industrial pilot line. The pilot line is also leased to the partners for R&amp;D activities.</p>
	<p><b>Solaria Germany GmbH</b> Mr. Philipp Kunze pkunze@solaria.com <a href="http://www.solaria.com">www.solaria.com</a></p>	<p><b>Solaria</b> designs, develops, and manufactures industry-leading silicon PV products that are solving the economics of solar energy. Solaria operates a 25 MW manufacturing facility in the Philippines, as well as an R&amp;D line at its headquarters in Silicon Valley and sales offices in Berlin, Germany. Solaria's target market is decentralised commercial installations.</p>
	<p><b>Solutia Europe SPRL</b> Mr. Jacques Blomme jjblom@solutia.com +32 10 48 15 58 <a href="http://www.solutia.com">www.solutia.com</a></p>	<p>Supplier of polyvinyl butyral (PVB) interlayers for lamination of PV modules of any technology or design. Saflex PVB is the world leading supplier of encapsulant to the industry with over 75 years experience. Saflex PVB is supplied worldwide by 6 manufacturing locations and customers have on-going relationships with local commercial and technical services. A customer laboratory service is available for the development of specific products to fit the specific needs of individual customers.</p>
	<p><b>Solyndra Inc.</b> Mrs. J. Kelly Truman, Ph.D. kelly.truman@solyndra.com +1 510 440 25 05 <a href="http://www.solyndra.com">www.solyndra.com</a></p>	<p><b>Solyndra</b> designs and manufactures PV systems, comprised of panels and mounting hardware, for the commercial rooftop market. Solyndra employs high volume manufacturing based on proven technologies and processes to meet the needs of the global solar market.</p>
	<p><b>Strücher AG</b> Mr. Gian-Franco Cavallini info@struecher.ch +41 55 417 47 13 <a href="http://www.struecher.ch">www.struecher.ch</a></p>	<p>Business Development Renewable Energy and Investment.</p>
	<p><b>Sulfurcell Solartechnik GmbH</b> Mrs. Silke Bosse bosse@sulfurcell.de +49 30 63 92 38 62 <a href="http://www.sulfurcell.de">www.sulfurcell.de</a></p>	<p><b>Sulfurcell</b> converts glass into electricity-producing solar modules. The core of each module consists of a thin CIS (Copper-Indium-Sulfide) layer that is a hundred times thinner than the silicon wafers of conventional modules, but equally as absorbent of sunlight. Sulfurcell's new and innovative class of Thin-Film solar modules combines stable energy production with aesthetic excellence.</p>
	<p><b>Suniva INC</b> Mr. Matt Card mcard@suniva.com +1 404 477 27 19 <a href="http://www.suniva.com">www.suniva.com</a></p>	<p><b>Suniva</b> develops and manufactures high value crystalline silicon solar cells and is focused on creating high conversion efficiency cells at a low cost. Suniva has deep R&amp;D strength &amp; collaborates with leading global module manufacturers, silicon producers and other material suppliers to optimise the PV value chain. Suniva has exclusive rights of patents and IP from its founder, Dr. Ajeet Rohatgi and the University Center for Excellence in Photovoltaics (UCEP) at the Georgia Institute of Technology.</p>
	<p><b>Svensk Solenergi</b> Mr. Andrew Machirant andrew@switchpower.eu +46 73 39 11 110 <a href="http://www.svensksolenergi.se">www.svensksolenergi.se</a></p>	<p><b>Svensk Solenergi</b> is the Swedish national solar energy association, representing the solar thermal and solar PV industries' interests to government, NGO's and the general public.</p>
	<p><b>The Linde Group</b> Dr Chris Case chris.case@linde.com +44 1483 244 643 <a href="http://www.linde.com/electronics">www.linde.com/electronics</a></p>	<p><b>The Linde Group</b> is a world leader in industrial gases and engineering, with more than 50,000 employees working in around 100 countries worldwide. Linde supplies high-purity gases and chemicals to major Thin Film and crystalline solar cell manufacturers around the world, and develops innovative gas and chemical-based technologies to help manufacturers reduce their costs per watt.</p>
	<p><b>Underwriters Laboratories International Germany GmbH</b> Mrs. Heike Thomas heike.thomas@eu.ul.com +49 61 02 36 92 52 <a href="http://www.ul.com/dge/photovoltaics/">www.ul.com/dge/photovoltaics/</a></p>	<p><b>Underwriters Laboratories (UL)</b> is a world leader in PV product testing and certification and as the only accredited National Certification Body (NCB) for PV product-testing in North America, UL is dedicated to meeting the testing needs of manufacturers and working together with industry, making sure testing capacity is readily available for the solar innovation that exists within the PV marketplace.</p>

## 4. List of EPIA Members as of March 2009

### FULL MEMBERS

3S Industries AG	Switzerland	Heliosphera	Greece
Acciona Solar S.A.	Spain	Heraeus Holding GmbH	Germany
Adept Technology	Germany	Ib vogt GmbH	Germany
AEG Power Solutions	France	IBC Solar AG	Germany
AES Solar Energy BV	The Netherlands	Intrakat S.A.	Greece
AGC Flat Glass Europe	Belgium	Isofoton	Spain
Aleo Solar AG	Germany	Isovolta AG	Austria
Applied Materials GmbH & Co. KG	Germany	IT Power Ltd	UK
Arkema France	France	Juwi Solar GmbH	Germany
Astra - KCMP	Kyrgyz Republic	Kaco Gerätetechnik GmbH	Germany
Atersa - Aplicaciones Tecnicas de la Energia SL	Spain	Komax Holding AG	Switzerland
August Krempel Soehne GmbH + Co.KG	Germany	Konarka	U.S.A.
Avancis GmbH & Co. KG	Germany	Kyocera Fineceramics GmbH	Germany
Bangkok Solar Co., Ltd.	Thailand	Leybold Optics Dresden GmbH	Germany
Baoding Tianwei Yingli New Energy Resources Co., Ltd.	China	Luvata Pori Oy	Finland
BG Solar Panels Ltd	Bulgaria	M+W Zander FE GmbH	Germany
Bisol d.o.o.	Slovenia	Martifer Solar, S.A.	Portugal
Blue Chip Energy GmbH	Austria	Masdar PV GmbH	Germany
BP Solar	Spain	Metallkraft A.S.	Norway
Centrosolar Group AG	Germany	Meyer Burger Technology Ltd	Switzerland
Centrotherm Photovoltaics AG	Germany	Mitsubishi Electric Europe B.V.	Germany
China Sunergy Co. Ltd	China	Mitsubishi Heavy Industry, Ltd.	Japan
City Solar AG	Germany	Mitsui Chemicals Europe GmbH	Germany
CNPV	China	Mondragon Assembly, S. Coop	Spain
Concentrix Solar GmbH	Germany	Multi-Contact AG	Switzerland
Conergy AG	Germany	NAPS Systems OY	Finland
CSI - Canadian Solar Inc. (Europe)	Germany	Norsk Hydro ASA	Norway
Danfoss	Denmark	NPC Europe GmbH	Germany
DC Chemical Co., Ltd.	Korea	Oerlikon Solar Ltd, Trubbach	Switzerland
Dow Corning Europe SA	Belgium	Phoenix Solar AG	Germany
DuPont Photovoltaic Solutions	Switzerland	Photovoltech	Belgium
DYESOL UK Limited	UK	Photowatt Technologies	France
Econcern - Ecostream International BV	The Netherlands	Pillar JSC	Ukraine
Ecotècnia Energias Renovables, S.L.	Spain	Piritium S.A.	Greece
Edisun Power Europe AG	Switzerland	Podolsky Chemical & Metallurgical Plant	Russia
Edwards LTD	UK	PV Crystalox Solar PLC	UK
Electria, S.A	Spain	Q-Cells SE	Germany
Elettronica Santerno SpA	Italy	Racell Solar	Denmark
Elkem Solar	Norway	RENA Sondermaschinen GmbH	Germany
eMAT Technology/Moses Lake Industries Inc	U.S.A.	Renergies Italia SpA	Italy
Enel.si srl	Italy	Renewable Energy Corporation ASA	Norway
Energy Solutions S.A.	Bulgaria	Riello Ups	Italy
EnerSys Ltd.	Switzerland	Saft	France
Enfinity Management BVBA	Belgium	Saint Gobain Glass	France
Engcotec Engco Advanced Technology GmbH	Germany	Samsung Deutschland GmbH	Germany
EniPower S.p.A.	Italy	Sanyo Component Europe GmbH	Germany
EPV Solar Inc.	U.S.A.	Scheuten Solar	The Netherlands
ErSol Solar Energy AG	Germany	Schott Solar GmbH	Germany
ESI - EnviroService International GmbH	Germany	Schunk Kohlenstofftechnik Group	Germany
Etrion SA	Switzerland	SGL Carbon GmbH	Germany
Evergreen Solar GmbH	Germany	Sharp Electronics (Europe) GmbH	Germany
Exel Group S.A.	Greece	Siemens AG, Automation & Drives Systems Engineering	Germany
Financenergy	Spain	Silcio S.A.	Greece
First Solar GmbH	Germany	Siliken	Spain
Fronius International GmbH	Austria	Singulus Technologies AG	Germany
GE Energy	U.S.A.	SMA Solar Technology AG	Germany
Goldbeck Solar GmbH	Germany	Solaire Direct	France
GP Solar GmbH	Germany	Solar Cells Hellas S.A.	Greece
Guardian Industries	U.S.A.	Solar Electric	France
Günter Spelsberg GmbH + Co. KG	Germany	Solar Energy	Russia
Helianthos B.V.	The Netherlands	Solar Plus S.A.	Portugal

Solar Technologies FZE  
 Solar Ventures SpA  
 Solarcentury Ltd.  
 Solaria Energia y Medio Ambiente S.A.  
 Solaria Germany GmbH  
 SolarWorld AG  
 SolFocus, Inc.  
 Solland Solar Energy B.V.  
 Solon SE  
 Solsonica SpA  
 Solutia Europe SPRL  
 Solvay Solexis  
 Solyndra Inc.  
 Sovelo A.G. (former EverQ GmbH)  
 Sputnik Engineering AG  
 Stangl Semiconductor Equipment AG  
 Sulfurcell Solartechnik GmbH  
 Suniva INC  
 SunPower Corporation  
 Suntech Power Holdings Co. Ltd.  
 Sunways AG Photovoltaic Technology  
 Systaic AG  
 Teneosol  
 The Linde Group  
 Topsil Semiconductor Material A/S  
 Total  
 Trina Solar Ltd.  
 Umicore S.A.  
 United Solar Ovonic Europe GmbH  
 Upsolar Co. Ltd.  
 Vesuvius  
 Von Ardenne Photovoltaik GmbH & CO KG  
 Wacker Chemie GmbH  
 Wagner & Co Solartechnik GmbH  
 WIP - Renewable Energies  
 Würth Solar GmbH & Co. KG

United Arab Emirates  
 Italy  
 UK  
 Spain  
 Germany  
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 U.S.A.  
 The Netherlands  
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 Belgium  
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 U.S.A.  
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 France  
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 Germany

## ASSOCIATE MEMBERS

Ademe France  
 APESF- Associação Portuguesa de Empresas de Solar Fotovoltaico Portugal  
 APISOLAR - Associação Portuguesa da Industria Solar Portugal  
 Apollon Solar s.a.s. France  
 APREN - Portugese Association of Independent Producers of Electric Energy from Renewable Sources Portugal  
 ASIF - Asociación de la Industria Fotovoltaica Spain  
 Asociación Empresarial Fotovoltaica Spain  
 Assosolare Italy  
 BSW - Bundesverband Solarwirtschaft e.V. Germany  
 CRES - Centre for Renewable Energy Sources Greece  
 Dexia Crédit Local France  
 ECN - Energy research Centre of the Netherlands The Netherlands  
 EDF France  
 Edora Belgium  
 Energie Facteur 4 Belgium  
 Enerplan France  
 EWE - Research Center for Energy Technology e. V. - Germany  
 Next Energy  
 Fraunhofer Institute for Solar Energy - ISE Germany  
 Gaz de France France  
 GIF1 - Anie Federazione Italy  
 Helapco - Hellenic Association of PV Companies Greece  
 Holland Solar The Netherlands  
 Imec Belgium  
 INES R.D.I. - Institut National de L'Energie Solaire France  
 PV Cycle Belgium  
 SEMI - Semiconductor Equipment and Materials International Belgium  
 SHV Holdings NV The Netherlands  
 SNEIA - Shanghai New Energy Industry Association China  
 Solar Academy BV The Netherlands  
 Solar Promotion GmbH Germany  
 Strücher AG Switzerland  
 Sumitomo Mitsui Banking Corporation Europe Ltd UK  
 Svensk Solenergi Sweden  
 Swissolar Switzerland  
 Syndicat des Energies Renouvelables France  
 TNC Consulting AG Switzerland  
 Trama Tecno Ambiental Spain  
 Underwriters Laboratories International Germany Germany  
 GmbH





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