## Embargoed until 14.00 CET /13.00 UK, 16.05.2011

## PRESS RELEASE

# PUMA and PPR HOME announce first results of unprecedented Environmental Profit \& Loss Account 

## Sportlifestyle Company PUMA analyses Water Consumption and Greenhouse Gas Emissions throughout its core business and supply chain operations


#### Abstract

Munich/ London, 16 May 2011 - With the announcement of initial results from the developing Environmental Profit \& Loss Account (E P\&L), the Sportlifestyle company PUMA and the PPR Group's sustainability initiative, PPR HOME, have disclosed that raw material production accounts for the highest relative impacts of Greenhouse Gas Emissions (GHG) and Water Consumption within PUMA's operations and supply chain. As the first company to provide such details, PUMA has published an economic valuation of the environmental impacts caused by GHG emissions and water consumption along its value chain. Ultimately, PUMA's undertaking will see the inclusion of further environmental key performance indicators in Stage 1, followed by social and economic impacts in later stages of development.


As part of PUMA's long-term sustainability plan, the analysis was commissioned in recognition that producing and selling PUMA products has a wide impact along the entire supply chain. By identifying the most significant environmental impacts, PUMA will develop solutions to address these issues, consequently minimizing both business risks and environmental effects. PUMA's E P\&L statement provides an unprecedented and detailed level of understanding, sets a new benchmark in corporate
environmental reporting and will hopefully serve as a catalyst for others to join an industry-wide engagement.

The first results of PUMA's E P\&L have revealed that the direct ecological impact of PUMA's operations translates to the equivalent of $€ 7.2$ million of the overall impact valuation. An additional € 87.1 million falls upon four tiers along the supply chain. In total, this leads to an overall environmental impact of GHG and Water Consumption of PUMA's operations and the supply chain of $€ 94.4$ million. By putting a monetary value on the environmental impacts, PUMA is preparing for potential future legislation such as disclosure requirements. These costs will serve as a metric for the company when aiming to mitigate the footprint of PUMA's operations and all supply chain levels and will not affect PUMA's net earnings.
"The E P\&L statement is a milestone in PUMA's mission to become the most desirable and sustainable Sportlifestyle company in the world. It is an essential tool and a shift in how companies can and should account for and, ultimately, integrate into business models the true costs of their reliance on ecosystem services and PPR HOME will encourage and collaborate with the industry to adopt this tool," said Jochen Zeitz, Chairman and CEO of PUMA and Chief Sustainability Officer PPR. "Gaining a better understanding of the source of the natural goods and services PUMA relies on and the declining availability of the basic resources required for our business growth, will help PUMA build a more resilient and sustainable business model and ultimately better manage its impacts on the environment."

PUMA chose GHG emissions and water for the first analysis in their E P\&L development as they were considered to be the most significant environmental impacts. The economic valuation of these impacts (please refer to www.about.puma.com for details of methodology) by PwC (GHG emissions) and Trucost (water use), estimated a value per tonne of $\mathrm{CO}_{2} \mathrm{e}$ at $€ 66$ and an average water value of $€ 0.81 / \mathrm{m}^{3}$. The analysis found that:

- Including the full supply chain, the overall impact was valued at $€ 94.4$ million in total for 2010 with greenhouse gases equating to $€ 47.0$ million and water to $€ 47.4$ million.
- Of the total, PUMA's operations accounted for $15 \%$ of the overall GHG emissions analysed, and $0.001 \%$ of water consumption. This is the equivalent to $€ 7.2$ million of the overall valuation.
- The remaining GHG and water consumption - the equivalent of $€ 87.10$ million - fell upon its entire supply chain.
"Fundamentally, this analysis is about risk management for the environment, and for business, because you cannot separate the two," said Alan McGill, partner, PwC Sustainability and Climate Change. "This is a first for a company to measure and value the impact of its business in this way and gives PUMA a unique and challenging insight into their supply chain. It's a game-changing development for businesses to integrate environmental issues into their current business model like this, because it provides a basis for embedding their reliance on ecosystem services into business strategy. Tackling the impacts will need concerted efforts by the businesses in their supply chain as PUMA shares a common but differentiated responsibility with other brands at the production facilities," he continued.

Analyses of the water and GHG impacts were performed across PUMA's value chain, including the operations of raw material and product suppliers as well as logistic services, which PUMA has limited control over.

- Tier 4: Raw material production, such as cotton farming, oil drilling, etc.
- Tier 3: The processing of raw materials, such as leather tanneries, chemical industry, oil refining
- Tier 2: Outsourced processes such as embroiders, printers, outsole production
- Tier 1: The manufacturing of its products
- PUMA core operations: Design, logistics services, warehousing, head office functions and retail


## Biggest Environmental Impact Derives from Raw Material Production

The analyses have shown that the biggest environmental impacts in the value chain occur, not through PUMA's core operations but at the level of its Tier 4 suppliers, where raw materials are derived from natural resources, such as the cultivation and harvesting of cotton, cattle ranching for leather, and natural rubber production. This part of the supply chain accounts for $36 \%$ of the total GHG ( $€ 16.7$ million) and $43 \%$ of water consumption ( $€ 24.7$ million); indicating that the most water intensive activity in the production of a t-shirt occurs at the initial step - the cultivation of cotton.

This analysis provides the first results of the first stage in a three-stage process to consider PUMA's and its supply chain's environmental, social and economic impacts, ultimately leading to the development of an all encompassing Environmental, Social and Economic Profit and Loss Account.

The final results completing Stage 1 - to be released in autumn this year - will see the inclusion of additional environmental key performance indicators such as acid rain and smog precursors, volatile organic compounds, waste and land use change, completing the valuation of the significant environmental impacts in PUMA's value chain.

As the impacts of PUMA's operations not only refer to the natural environment, Stage 2 will require collaboration with other corporate and civil society stakeholders in tackling the complexities of social factors in sustainability such as fair wages, safety and working conditions, enabling the development of an Environmental and Social P\&L account.

Stage 3 will complete the other side of the equation, moving to the equally complex area of valuing the social and economic benefits from PUMA's operations through the creation of jobs, tax contributions, philanthropic initiatives and other value-adding elements. These benefits will then be offset against the environmental and social costs calculated in Stages 1 and 2, hence completing PUMA's Environmental, Social and Economic P\&L statement. Stage 3 will require a strong collaborative effort to develop robust valuation methodologies and approaches. This challenge will have resonance with the corporate sector as more and more companies actively undertake similar analyses throughout their supply chains.
"Companies that understand their dependence on natural resources along the value chain are well placed to manage underlying risk from rising raw material costs and scarcity of supply issues", said Dr. Richard Mattison, CEO of Trucost. "Companies are already facing increasing input costs as a result of rising commodity prices related to climate change and water availability. PUMA is now positioned to address these challenges in advance and we have helped provide them with management tools to minimise risk, hedge against uncertainty and identify new opportunities to optimise the sustainability of its products."

## PUMA's Response to the Results to Minimize Risks

To reduce the impact, PUMA will start by using these findings to better direct its sustainability efforts and initiatives. PUMA's sustainability scorecard, which was introduced in early 2010 and sets targets such as $100 \%$ sustainable packaging and $25 \%$ reductions of carbon, energy, water for 2015, has already begun to address the environmental impacts at PUMA's operations and Tier 1 supplier levels. PUMA will examine how to adjust the targets set in its current sustainability scorecard and look for solutions along the entire supply chain.

In order to target solutions that address the levels of the greatest impact from tier two to four, PUMA and PPR HOME will look to play a catalytic role in raising awareness that the current business model is outdated and needs decisive reforms, forging partnerships and collaborations to explore new and innovative ways to differentially attribute the responsibilities and equitably share the costs of these, while building capacity at suppliers' factories and developing new materials and products.

## Raising Awareness

PUMA and PPR HOME are sharing the results of the E P\&L with other industry players and corporations to leverage adopting a new business model that takes the costs of using natural resources within business operations into account.

This analysis will also help to better assess the relative environmental impacts of sourcing from different countries and regions. Down the line it will allow PUMA to improve supply chain management and reduce supply chain risks.

## Developing synergies and partnerships

PUMA's majority shareholder, PPR, has recently joined the World Business Council for Sustainable Development (WBCSD), which could provide an appropriate platform for constructive debate on the issue of differentiated responsibility and equitable sharing of the costs of environmental impacts while exploring new business models to help reduce these costs in future. For many years, PUMA has been engaging with other global initiatives, industry dialogues and corporate alliances to address sustainability challenges such as: the UN Global Compact, the Fair Labor Association, the Carbon Disclosure Project and, most recently, the 2 Degree Initiative and PPR's luxury brands have been long-term members of organizations such as the Sustainable Luxury working group (set up by the Business for Social Responsibility) and the RJC (Responsible Jewellery Council).

PUMA has recently joined the Sustainable Apparel Coalition, an industry-wide group of leading apparel and footwear brands, manufacturers, experts and the United States Environmental Protection Agency to reduce the environmental and social impacts of apparel and footwear products. This underpins PUMA's effort to increase collaborations with its industry peers to address the environmental impacts occurring at all shared levels of the supply chain.

## Building Capacity to Create Snowball Effect

PUMA will focus even more attention on capacity building projects in collaboration with other industry players to help Tier 1 supplier management identify weak points in their operations by offering training programs and by enabling them to make improvements, independently. For more than six years, PUMA has carried out capacity building projects together with other industry brands to improve environmental and social conditions at Tier 1 supplier factories.

Over the past decade PUMA has ensured that Tier 1 suppliers are committed to adhere to PUMA's environmental and social standards. The company will now require Tier 1 suppliers to guarantee that all of their suppliers in the next tier down follow the same guidelines. Through this it is hoped that over time all suppliers will comply with PUMA's Code of Conduct and Environmental, Social and Health \& Safety standards.

## Innovating for the Development of Sustainable Materials and Products

By 2015, 50\% of PUMA's international collections will be manufactured according to PUMA's internal sustainability standard, PUMA S-Index, using more sustainable materials such as recycled polyester, that take into account the enormous environmental impact of raw material production. PUMA will investigate the opportunity to address the impact of Tier 1 to Tier 4 suppliers through the innovative development of more sustainable materials and products.

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## First Results of PUMA's Environmental Profit and Loss Account

| 201.0 | Non-financial performance | Economic value € million | Economic value \% |
| :---: | :---: | :---: | :---: |
| PUMA Operations: <br> Greenhouse Gases $\left(\mathrm{ktCO}_{2} \mathrm{e}\right)$ <br> Water ( ${ }^{(000 ~ m}{ }^{3}$ ) | $\begin{aligned} & 110.1 \\ & 108.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 7.2 \\ & 0.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & 7.6 \% \\ & 0.1 \% \end{aligned}$ |
| Tier 1 suppliers <br> Greenhouse Gases $\left(\mathrm{ktCO}_{2} \mathrm{e}\right)$ <br> Water ( ${ }^{\prime} 000 \mathrm{~m}^{3}$ ) | $\begin{array}{r} 131.4 \\ 5,319.8 \\ \hline \end{array}$ | $\begin{aligned} & 8.6 \\ & 0.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 9.1 \% \\ & 0.8 \% \end{aligned}$ |
| Tier 2-4 suppliers <br> Greenhouse Gases $\left(\mathrm{ktCO}_{2} \mathrm{e}\right)$ <br> Water ( ${ }^{(000 ~ m}{ }^{3}$ ) | $\begin{array}{r} 476.0 \\ 72,064.5 \\ \hline \end{array}$ | $\begin{array}{r} 31.2 \\ 46.5 \\ \hline \end{array}$ | $\begin{aligned} & 33.1 \% \\ & 49.3 \% \\ & \hline \end{aligned}$ |
| Total: <br> Greenhouse Gases ( $\mathbf{k t C O}_{2} \mathrm{e}$ ) <br> Water ( ${ }^{0} 00 \mathrm{~m}^{3}$ ) | $\begin{array}{r} 717.5 \\ 77,493.1 \\ \hline \end{array}$ | $\begin{aligned} & 47.0 \\ & 47.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 49.8 \% \\ & 50.2 \% \end{aligned}$ |
| Total economic value |  | 94.4 | 100\% |

## Breakdown Tables of Greenhouse Gas emissions and Water Use

2010 Greenhouse Gas emissions by value chain source

| Source | $\mathrm{ktCO}_{2} e$ | € million | \% of € million |
| :--- | ---: | ---: | ---: |
| PUMA Operations* | 110.1 |  |  |
| Tier 1 | 131.4 | 7.2 | $15 \%$ |
| Tier 2 | 108.8 | 8.6 | $18 \%$ |
| Tier 3 | 112.7 | 7.1 | $15 \%$ |
| Tier 4 | 254.5 | 7.4 | $16 \%$ |
| Total | $\mathbf{7 1 7 . 5}$ | $\mathbf{1 6 . 7}$ | $36 \%$ |

2010 Breakdown of Greenhouse Gas emissions from PUMA's operations

| Source | $\mathrm{ktCO}_{2} \mathrm{e}$ | € million | \% of $€$ million |
| :---: | :---: | :---: | :---: |
| Scope 1 | 6.9 | 0.4 | 6\% |
| Scope 2 | 27.3 | 1.8 | 25\% |
| Scope 3 - Logistics | 67.1 | 4.4 | 61\% |
| Scope 3 - Business travel | 8.8 | 0.6 | 8\% |
| Subtotal | 110.1 | 7.2 | 100\% |


| Region | ktCO <br> 2 | € million | $\%$ of $€$ million |
| :--- | ---: | ---: | ---: |
| EMEA | 122.9 | 8.0 | $17 \%$ |
| Americas | 150.9 | 9.9 | $21 \%$ |
| Asia / Pacific | 443.7 | 29.1 | $62 \%$ |
| Total | $\mathbf{7 1 7 . 5}$ | $\mathbf{4 7 . 0}$ | $\mathbf{1 0 0 \%}$ |

2010 GHG emissions by own Operation \& Supply Chain Product Category

| Segment | $\mathrm{ktCO}_{2} \mathrm{e}$ | € million | \% of € million |
| :---: | :---: | :---: | :---: |
| PUMA Operations | 110.1 | 7.2 | 15\% |
| Footwear | 376.7 | 24.6 | 53\% |
| Apparel | 171.7 | 11.3 | 24\% |
| Accessories | 59.0 | 3.9 | 8\% |
| Total | 717.5 | 47.0 | 100\% |

2010 Water-use by value chain source

| Source | Million $\mathrm{m}^{3}$ | € million | \% of € million |
| :--- | ---: | ---: | ---: |
| PUMA Operations | 0.1 | 0.1 | $0 \%$ |
| Tier 1 | 5.3 | 0.8 | $2 \%$ |
| Tier 2 | 20.3 | 4.1 | $9 \%$ |
| Tier 3 | 18.4 | 17.7 | $37 \%$ |
| Tier 4 | 33.4 | 24.7 | $52 \%$ |
| Total | $\mathbf{7 7 . 5}$ | $\mathbf{4 7 . 4}$ | $\mathbf{1 0 0 \%}$ |

2010 Water-use by region

| Region | Million $m^{3}$ | € million | \% of € million |
| :--- | ---: | ---: | ---: |
| EMEA | 9.3 |  |  |
| Americas | 14.6 | 3.8 | $8 \%$ |
| Asia / Pacific | 53.6 | 2.0 | $4 \%$ |
| Total | $\mathbf{7 7 . 5}$ | 41.6 | $88 \%$ |


| Segment | Million $\mathrm{m}^{3}$ | € million | $\%$ of € million |
| :--- | ---: | ---: | ---: |
| PUMA Operations | 0.1 | 0.1 | $0 \%$ |
| Footwear | 38.5 | 25.4 | $54 \%$ |
| Apparel | 30.8 | 18.0 | $38 \%$ |
| Accessories | 8.1 | 3.9 | $8 \%$ |
| Total | $\mathbf{7 7 . 5}$ | $\mathbf{4 7 . 4}$ | $\mathbf{1 0 0 \%}$ |

## Notes to editors:

1. PUMA commissioned Trucost and PwC to assist in developing the Environmental Profit and Loss project. Trucost brings unrivalled experience and skills in value chain environmental KPI analysis and environmental externalities, while PwC's sustainability and climate change team provided specialist expertise in environmental valuations and corporate reporting.
2. Methodology: Operational Emissions Data: All operational emissions data has been sourced from PUMA's internal environmental management system. The data collected covers all of PUMA's operations across each country for the 2010 financial year where PUMA owns greater than $50 \%$ of the operations and has more than 10 employees. For greenhouse gas (GHG) emissions, the system covers emissions derived from operational fuel use in buildings and vehicles, purchased electricity and steam, logistics and business travel. For water abstraction, the system covers all domestic water consumption.
3. Methodology: Supply Chain Emissions Data: The supply chain emissions data has been calculated using Trucost's econometric input-output (I-O) model supplemented with actual emissions data collected through engagement with first-tier suppliers. The econometric model deployed uses extensive government census data to analyse the products used and produced by over 464 business sectors. By understanding this relationship and the economic interactions between each business sector, the model integrates the use and emissions of over 700 environmental resources. Using information on the expenditure and sectors of operation for PUMA's first-tier suppliers, GHG emissions and water abstraction quantities were calculated for each supplier's own operations and those of its supply chain.

Using this modelled footprint, the high impact suppliers were identified for direct engagement. The operations and supply chains of 60 first-tier suppliers represented $90 \%$ of GHG emissions and water abstraction quantities across PUMA's entire supply chain. The data collected from this sample of suppliers included operational fuel use in buildings and vehicles, purchased electricity and steam, and water consumption. PUMA had previously collected data on 50 of these suppliers through audits carried out in 2010. The remaining suppliers were contacted using an online questionnaire.

Engagement with suppliers in Tiers 2 and 3 has provided insight into their location. The geographical sourcing of raw materials within each product category (Apparel, Footwear, Accessories) was used to determine the geographical breakdown for Tier 4.
4. Methodology: GHG Valuation: To express the impacts of GHGs in monetary terms PUMA has applied an estimate of the "Social Cost of Carbon" (SCC). The SCC attempts to value the costs to society as a result of current and future climate change (e.g. reduced agricultural productivity, increased storm damage) attributable to each tonne of carbon dioxide equivalent (CO2e) ${ }^{1}$. The SCC used by PUMA was derived from a subset of the SCC estimates reported by the economist Richard Tol in his 2009 paper "The Economic Effects of Climate Change". A number of factors have a significant impact on the resulting SCC estimate, for example; how damages are valued, how future damages are discounted, how catastrophic risks are accounted for and whether there is equity weighting across countries based on income levels. PUMA have applied what it believes are sensible assumptions for each of these factors. Applying these assumptions results in a value of $€ 66$ per tonne of CO2e.
5. Methodology Water Valuation: The water valuations are derived from an extensive review of the available water valuation literature adjusted for local incomes and water scarcity. The values for water represent the reduction in the indirect use value of water accruing to third parties such as freshwater replenishment, ecosystem maintenance and water nutrient cycling as a result of water consumption in PUMA's entire supply chain - including raw material inputs - and its own operations. The lost value associated with reduced water availability for direct consumption (the opportunity cost of water) is not included because this is assumed to be accounted for in the price PUMA and its suppliers pay for water extraction and use.

The indirect use value of water is considered to be principally driven by its scarcity. To estimate the relationship between scarcity and value, a sample of 18 existing studies was used. The available literature of sufficient comparability is limited and the decision was taken to use a subset of comparable US studies to plot the relationship. The value is location specific and is proportional between the relationship of value and scarcity.

The observed relationship between water scarcity (withdrawal from surface and groundwater as a percentage of actual renewable freshwater resources) and value was calibrated to the valuation estimate obtained from the literature review and applied across sites and countries in PUMA's own operations and supply chain to estimate the water use externality. The level of water scarcity in PUMA's operations and supply chain was obtained at a basin-level where location-specific information was available and otherwise considered at a country-level. The weighted average value according to the locations of PUMA's operations and that of its global supply chain is $€ 0.81 / \mathrm{m}^{3}$.

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## PUMA

PUMA is one of the world's leading Sportlifestyle companies that designs and develops footwear, apparel and accessories. It is committed to working in ways that contribute to the world by supporting Creativity, SAFE Sustainability and Peace, and by staying true to the principles of being Fair, Honest, Positive and Creative in decisions made and actions taken. PUMA starts in Sport and ends in Fashion. Its Sport Performance and Lifestyle labels include categories such as Football, Running, Motorsports, Golf and Sailing. Sport Fashion features collaborations with renowned designer labels such as Alexander McQueen, Mihara Yasuhiro and Sergio Rossi. The PUMA Group owns the brands PUMA, Cobra Golf and Tretorn. The company, which was founded in 1948, distributes its products in more than 120 countries, employs more than 9,000 people worldwide and has headquarters in Herzogenaurach/Germany, Boston, London and Hong Kong. For more information, please visit http://www.puma.com

## PPR

PPR nurtures a group of high-growth global brands distributed in more than 120 countries. Through its Consumer and Luxury brands, PPR generated revenue of $€ 14.6$ billion in 2010, and had approximately 60,000 employees at December 31, 2010. The PPR share is listed on Euronext Paris (FR 0000121485, PRTP.PA, PPFP).

To explore the PPR brand universe, please visit www.ppr.com : the Luxury group (Gucci, Bottega Veneta, Yves Saint Laurent, Balenciaga, Boucheron, Sergio Rossi, Alexander McQueen and Stella McCartney), Puma, Fnac and Redcats (La Redoute, Vertbaudet, Somewhere, Cyrillus, Daxon, Ellos, The Sportsman's Guide, The Golf Warehouse and large size division brands).

## PPR HOME

The PPR Group unites its brands under PPR HOME to work together towards PPR HOME's Vision of a better world that is more sustainable - economically, socially and ecologically - than the world we know and live in today. With PPR HOME, the Group commits to lessen its impact on the environment, taking responsibility and proactive steps to implement more sustainable business practices. PPR HOME moves beyond the conventional CSR approach and promotes a new business paradigm whereby the attainment of sustainability is driving creativity and innovation, and vice versa, to build businesses that deliver financial, social and environmental returns for the long run


[^0]:    ${ }^{1} \mathrm{CO}_{2}$ equivalent $\left(\mathrm{CO}_{2} \mathrm{e}\right)$ is the concentration of $\mathrm{CO}_{2}$ that would cause the same level of radiative forcing as a given type and concentration of another greenhouse gas. Examples of such greenhouse gases are methane, perfluorocarbons and nitrous oxide. $\mathrm{CO}_{2} \mathrm{e}$ is expressed as parts per million by volume, ppmv. $\left(\mathrm{CO}_{2} \mathrm{e}\right)$ released in a given year.

