



When it comes to water, Dutch expertise is well known over the world. But this does not only cover water supply and wastewater treatment. The Netherlands also has ample expertise in the field of integral water projects. Water is seldom a stand-alone issue. Water experts in the Netherlands have learned to think in an integral way, since many solutions are interconnected with solid waste or energy. The keyword in integral water projects is sustainability.

A Public Water Supply was established in most parts of the Netherlands more than 100 years ago. The rate of provision in the Netherlands is nearly 100%. An important part of sustainability is reuse. The Netherlands has big water problems because of heavy rainfall at certain times of the year. The water supply is dependent on the quality of the surface water, which is not always sufficient. This has led to much emphasis on reuse and sustainability. Public wastewater treatment also has a long history in the Netherlands. It was established in most parts of the country more than 50 years ago. Nowadays, nearly all wastewater in the Netherlands is treated before it is discharged into the surface water. This not only true for municipalities, but private houses outside the cities and factories of every size also treat their wastewater.

Over the last 30 years, many technologies have been developed. Around 1975, anaerobic treatment was developed. Many aerobic biological treatments have their origin in the Netherlands. Nowadays, there are more than 1,000 anaerobic treatment plants for industrial, but also for municipal wastewater treatment. Wastewater treatment and the reuse of valuable materials are synonyms. Over the last years, many clean technologies have been developed. The reuse of energy, phosphate and nitrogen are examples in this respect. Another example of clean technology is the reuse of chromium in leather production.

AREAS OF EXPERTISE

DRINK WATER SUPPLY

- Water resources/production
- Re-use of water
- (Chemical) treatment of water
- Distribution of drinking water
- Leakages detection, repair
- Reclamation of costs

LABORATORY OPERATIONS (WATER SUPPLY)

INSTALLATION AND EQUIPMENT

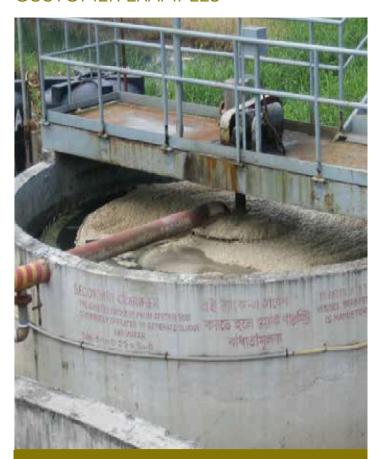
- Operations
- Maintenance

PLANT MANAGEMENT

WASTE WATER TREATMENT

- Collection
- Treatment
- Distribution
- Reclamation of costs

CUSTOMER EXAMPLES



BIOLOGICAL TREATMENT FOR WASTEWATER

An industrial area needed a wastewater treatment system. The wastewater was difficult to treat due to a high pH and a high salt content. The main industrial activity was the industrial conservation of olives. For this reason, biological treatment was not an option. An additional problem was that regulations prohibit treatment that mixes wastewater with sewage. After visiting the industries concerned and consultation with the organisation responsible for the local wastewater treatment, the PUM expert drew up a report. It stated that, initially the industries should reuse lime and salt for cost reduction and should produce an effluent suitable for biological treatment. Another important point was that sewage should be used to dilute the industrial effluent. The mixture was treated in an anaerobic treatment system. The treatment facility was realised as part of the existing anaerobic pond.

SUSTAINABLE SOLUTIONS FOR HOTEL

A hotel wanted to operate as sustainably as possible. This meant a minimal use of water and energy and a minimal production of solid waste. Achieving part of the water saving is possible by using water saving materials in the shower, the taps and the toilets. It is possible to use recycled water for toilet flushing or to choose toilets that useless water. In this way, it is possible to reduce water use by 50%. An important part of the treatment facilities will be an anaerobic treatment system (no use of energy). With this system, biogas will be produced. Biogas can be used for cooking. The hotel uses a lot of electricity. The energy is used for heating water, the showers, the laundry and lightning. The use of a solar energy boiler will provide a large benefit. Based on these recommendations by the PUM expert, the hotel was able to work towards a more sustainable future.

SMALL-SCALE WATER TREATMENT

Some 20 remote rural villages asked for assistance in disposing of municipal wastewater. The wastewater was discharged untreated in fields, paths and gardens close to the village. It was causing unhygienic situations and water-related diseases. A PUM expert visited the area and during his stay, several modules of small-scale wastewater treatment units were engineered. After that, the modules were adjusted to the local circumstances, such as hilly or flat areas, the geo-hydrological situation, etc. Local social and cultural habits were also taken into account and the participation of the village inhabitants was secured. Furthermore, awareness was raised regarding the intake, storage and treatment of drinking water at a household level. By sharing additional hygiene information with village health posts, a total plan for a decrease in water related diseases was realised.

WASTEWATER TREATMENT AT A DAIRY FARM

The water used in a dairy farm in Honduras was treated in a treatment plant, where among other things, the pH level was being controlled. The plant was constructed about five years ago. The water treatment results were very poor due to heavy overloading and wrong dimensioning. The treated water was discharged into the public sewer and sludge was collected and removed in drums. During the first mission several, improvements were suggested. Most of these have been implemented. The most important is the change in sequence of pH control, the flotation unit and the equalising tank. The measures had positive results. Situating the equalising tank at the beginning of the process resulted in much better and more constant performance of the flotation unit. One result of the new situation is also that fewer chemicals have to be used.

HOW CAN
WE HELP
SHAPE YOUR
BUSINESS?

Want to know how a PUM senior expert can help you specifically? Apply for advice online or take up contact with your PUM representative for a personal introduction.



Find out how your business can benefit from our expertise.

PUM Netherlands senior experts offers knowledge and expertise from 50 sectors of the economy. Our experts have many years of professional experience in their field and share their knowledge on a voluntary base.



INDUSTRY & TRADE

Textile, leather industry and consumer products

In the past, the Netherlands was known for their manufacturing and trade in textiles. Currently focus is on high quality products especially regarding technology, like innovative manufacturing techniques and environmental issues, in combination with fashion design and creation of garment collections.

This also applies to the leather sector where the manufacturing of shoes, bags and accessories are an important part of the fashion industry.

All our experts have managerial experience, and will always incorporate sales and marketing, general management and financial aspects in their advice.

Special attention within the leather industry is paid to the tanneries where wet blue, crust and finished leather is produced. The leather experts in The Netherlands have cutting edge knowledge of every aspect of leather production, from beamhouse operations to finishing.

Environmental awareness and quality/process control is part of our expert advice; we can supply the technology to meet your government's criteria regarding effluent and waste.

AREAS OF EXPERTISE

DESIGN

Pattern making, from basic procedures to cad/cam systems. Styling, developing fashion brands, creating fashion collections.

TRADE AND MARKETING

Shop-keeping, quality control, promoting a fashion collection, marketing of leather products, exports and sales strategies.

PROCESSES

Operations, CMT production, production of shoes, bags and leather goods. Spinning, weaving, dyeing, knitting, wax, screen and offset printing. Tanning, quality management, effluent treatment.

CORPORATE SOCIAL RESPONSIBILITY

Waste water treatment, chemicals, environmental issues, quality control and corporate sustainability.

CUSTOMER EXAMPLES



EDUCATION

PUM followed up with another mission. The PUM-expert trained a new batch of students and helped refurbish the workshop and improved working conditions. Meanwhile, three

NEW START FOR A TANNERY

PUM was asked to send an expert to assist clients in revitalising an out-of-date tannery. The tannery was part of a vast installation, four hectares big, comprising a laboratory, the tannery itself, and a lot of tanning machinery. The machines were salvaged and gathered into a single work area. Cow hides were purchased from a local slaughter house, and the tanning process was begun. Only basic chemicals were used, such as lime, sulfur, and various acids, all bought at local markets. Following wet-blue treatment, the crust leather process was applied utilising stock chemicals, also obtained from local markets. Lastly, the finished leather was manufactured into shoes for sale on the open market. After our PUM expert had returned to The Netherlands, tannery samples of wet-blue processed leather were sent to the expert for comparison-testing against a similar, Dutch product, processed instead using modern chemicals. Results were conclusive: stateof-the-art chemistry guarantees enhanced quality in dressed leather production.

INCREASED SALES OPPORTUNITIES

A factory producing children's shoes had applied for a PUM expert in order to assist in solving some technical problems related to a certain type of shoe production and, further, to develop an export marketing plan to export products to Europe. A problem with one of the shoe production machines was solved by a local technician after which the company's marketing plan was addressed. The PUM expert conducted a thorough SWOT analysis and, based on its findings, advised the company to postpone exporting to Europe. It was recommended that the company first improved the local marketing organisation. Management found that local markets offered more than enough sales opportunities and, as a consequence, developed a new plan. Within two years of implementing the PUM expert's recommendations, the shoe factory had doubled production of the company's branded footwear and was able to sell all of the products on the local market. Building on this success, the company now was able to penetrate markets of neighbouring countries.

SOCIAL IMPACT

Our PUM expert advised an entrepreneur who was working with disadvantaged women to start up a souvenir shop. With a lot of improvising and enthusiasm the souvenir shop did go off on a good start, said the PUM-expert: "I had to design patterns using newspaper and tape, and stones in place of pins, and it was gratifying to create with the ladies great looking designs," adding that "the entrepreneur has since received an order from a Dutch shop for thirty dresses, and I also advised the entrepreneur on a store layout likely to tempt customers into buying something."

HOW CAN WE HELP SHAPE YOUR BUSINESS?

www.pum.nl







Download the PUM App



- Manual for customers -

How to complete your application and apply for advice

Version 1.0

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Dear entrepreneur,

Welcome to PUM Netherlands senior experts. If you want to apply for advice you first need to create a customer account before you can submit a project request. You can do this yourself or if needed, ask help of one of the representatives in your country.

CREATE A CUSTOMER ACCOUNT

Please visit www.pum.nl

Select the button: Get advice

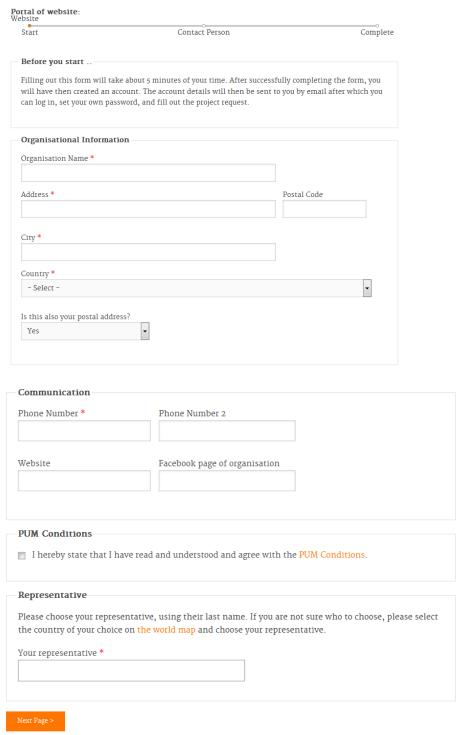


Read the information about applying for advice. After reading go to the button: Apply for advice



Now you can create a customer account on our website. Please fill in the web form as shown on the next page.

Create customer account

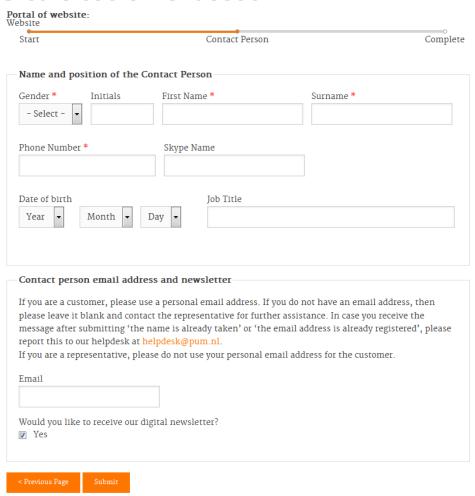


Please make sure that you choose the right representative for your country/region. The world map on our homepage will give you an overview of all countries where PUM is active. Click on the country of your choice and you will see the names of the representatives of that country/region.

If your country does not have a representative it is possible that we are not active in your country. You are unable to proceed with your application.

When PUM is active in your country you can finish the application by submitting your authorised contact. He or she will get the e-mail with your details and will be your contact person throughout the mission.

Create customer account



A welcome message with further instructions has been e-mailed to the new user

Create customer account

Start Contact Person Complete

Thank you for your interest in PUM Netherlands senior experts. You have succeeded in creating your profile. Within a couple of minutes you will receive an email with information on how to activate your account. Once you have activated your account, you will be able to continue filling out your project proposal.

CREATING YOUR NEW PASSWORD

After several minutes you will receive an automatically generated e-mail with instructions. Click on the link to change the password.

A site administrator at PUM Netherlands senior experts has created an account for you. You may now log in by clicking this link or copying and pasting it to your browser: https://accept.pum.nl/user/reset/6394/1446025469/jPN AWPFAaDSUp 9hrw6QPF... This link can only be used once to log in and will lead you to a page where you can set your password. After setting your password, you will be able to log in at https://accept.pum.nl/user in the future using: password: Your password Please note that you can still access PRINS on the website old.pum.nl using your current account details (user name and password). Please note after login you can access the manual for your reference: https://www.pum.nl/portal/manual

-- PUM Netherlands senior experts

After clicking the link you will get the following notification, please notify that you can only use this button once.

Reset password

This is a one-time login for and will expire on 29 October, 2015 - 10:44.

Click on this button to log in to the site and change your password.

This login can be used only once.

Log in

After clicking the Login button a new window opens and here you can change your password.

You have just used your one-time login link. It is no longer necessary to use this link to log in. Please change your password.

HOME / MY ACCOUNT / 6394

Your username



Name

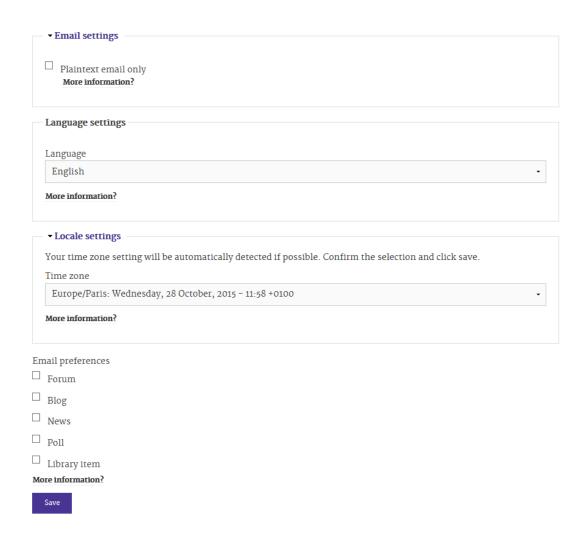
Your username

Email

Your e-mail address

E-mail address *		
More information?		
Password		
	Password strength:	
Confirm password		

To change the current user password, enter the new password in both fields.



Please create a strong password and write it down somewhere so you cannot forget it after a period of time.



To change the current user password, enter the new password in both fields.

When you have changed your password you will automatically be forwarded to PUMnet where you can submit your project request.

The changes have been saved. HOME / PORTAL My Work Portal Dear entrepreneur, Welcome on PUMnet! This site helps you to do business with PUM as it facilitates information and knowledge sharing between you, your PUM representative, our senior experts and the rest of our organisation: PUM Netherlands senior experts. My Projects By Organisation My project requests

Submit new project request

My Work:

If there are any tasks, e.g. a debriefing form that needs to be completed, you will find this here.

By organisation

Click on this tab to view the details of your organisation.

In the menu on the right hand side, you will find multiple options:

My project requests

Here you will find an overview of your (previous) project requests, in case there are any. You will also be able to monitor the status of any project requests made.

Submit new project request

If you are an existing or new client of PUM, you can submit a new project request here.

Contact

If you need help with the application process, please contact one of our representatives. You will find their details by selecting the country of your choice on the worldmap on www.pum.nl.

SUBMIT A NEW PROJECT REQUEST

After you have changed your password you can submit a new project request. Please be aware that the form cannot be saved online with the intention to finish it later. Leaving the form will delete all your entries.

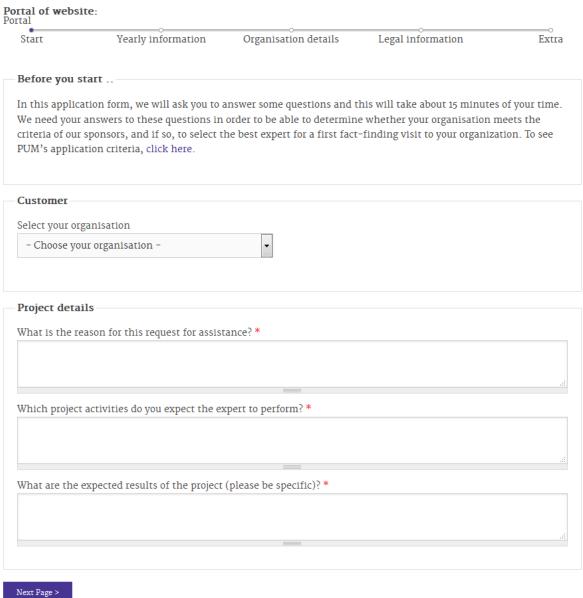
Please read the given information carefully about how to fill in the form so it will take a minimum of your time. If the **next page** button is not working, you will see an error message and the field which is not filled in correctly will lighten up with a red outline.

Please check what went wrong, fill it in correctly and pursuit to the next page.

PAGE ONE: START

Please be specific in the reason, activities and expected results so we can select the right expert for your project.

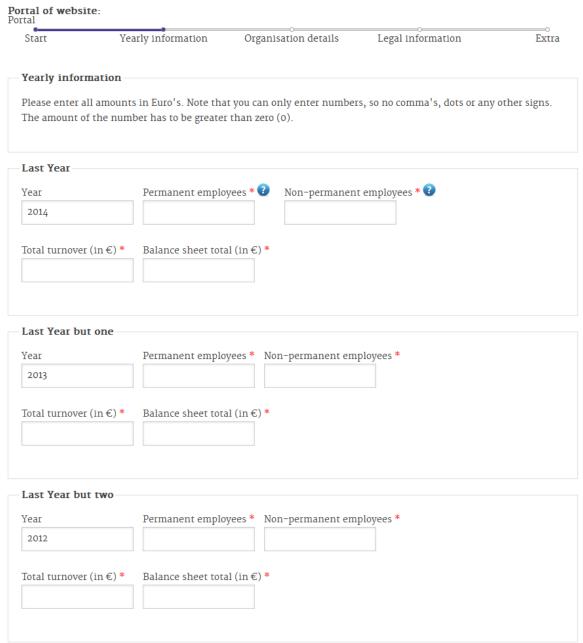
Submit new project request



PAGE TWO: YEARLY INFORMATION

Please be aware that you can only enter numbers, so no comma's, dots or any other signs and the amount has to be greater or equal as o.

Submit new project request



PAGE THREE: ORGANISATION DETAILS

Which operational model approaches your organisation the most?

Distribution: Delivery of good or service to the target audience, whether through traditional transport or infrastructure

Financial Services: Financial products and services

Processing/Packaging: Processing and or packaging goods

Production/Manufacturing: Production and/or manufacturing of goods

Services: Services such as education, health, communication, transportation, social services, tourism, etc. Wholesale/Retail: Intermediary organisation that purchases goods and sells them to new target customers

Be specific in what your enterprise offers and in what area you need assistance from a PUM expert. For example, you are an organisation which exports tomatoes but need assistance in how to manage your Human Resource department.

Submit new project request

Start	Yearly information	Organisation details	Legal information	Extra
Organisatio	n details			
What is the o	perational model of the organi	sation?*		
Choose some	e options			
What are the	products and/or services offere	ed? *		
	-			
	ow are the products and/or serv	vices sold? *		
wnere and no				
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where and no				
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where and no		===		

PAGE FOUR: LEGAL INFORMATION

What is the legal form of your operation? Please provide ownership information.

- Select -

Sole-proprietorship

Limited Liability Company

Partnership

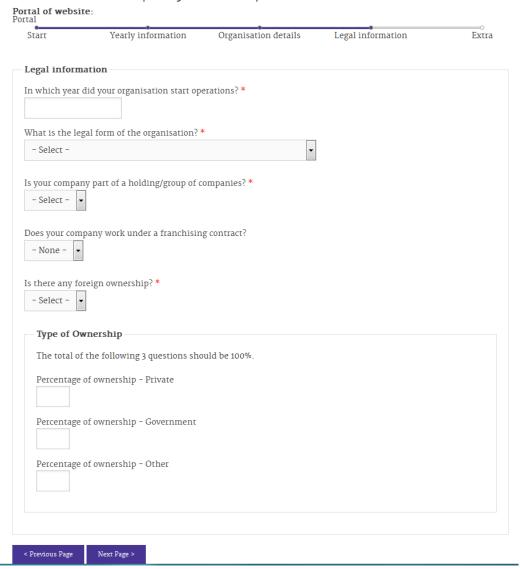
Associations

Co-operative

Non-Profit/Non-Governmental Organisation Joint Stock Company

Other

Submit new project request



PAGE FIVE: ADDITIONAL INFORMATION

If you want an expert to visit your company at a specific time of the year, during for example harvest or sowing season, to get the best advice, please let us know in the **Additional comments Project request**. So we can find the right expert for your company.

Also we like to know: where did you hear about PUM?

- None -

From a private sector support organisation in my country (sector associations, consultancy firms etc)

From a public sector support organisation in my country (governments, chamber of commerce etc)

From an international development organisation

Other, please specify which one:

Through a PUM seminar

Through support from the Netherlands in the past

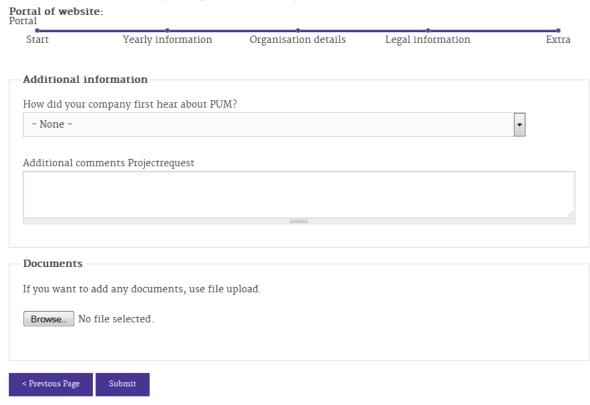
Through the embassy

Through the internet

Through the local PUM Representative or contact person

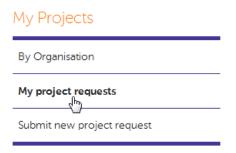
If you have any documents you would like to share about your company or the upcoming project you can upload them here by using the browse button.

Submit new project request



If you have any questions about the Project request form you can contact your representative or send an e-mail to helpdesk@pum.nl

After submitting your request you can find a summary on PUMnet in My Projects > My project requests.



My project requests

Organisation	Date.	Subject	Status	
	4 August, 2015 - 00:00		Completed	View project request

After receiving your project request the representative will receive a notification that you have submitted a new project request. If necessary the representative will contact you for further information about your company so he or she can finish the project request.

After this assessment your request will be evaluated by the Country Coordinator, the Sector Coordinator and the Monitoring department of PUM. When they all approve of the application you will be notified by e-mail.

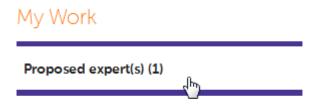
When your request is rejected you will also get a notification.

YOUR PROJECT REQUEST HAS BEEN APPROVED, HOW TO PROCEED?

After approving your project request the Sector Coordinator will search for the right expert. The expert will be asked to fill in his project qualifications, available period for visiting your company and any questions he or she wants to ask you.

After receiving the project qualifications of the expert we will send you an e-mail stating that the CV of the expert is available online. You need to log in on www.pum.nl to accept or reject the proposed expert.

Click on Proposed Expert



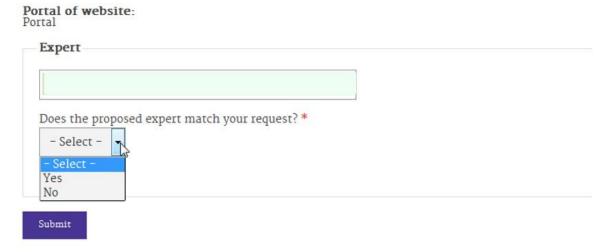
By clicking on the Expert's name you will get access to his or her CV and project qualifications.

Proposed expert(s)

Expert for	Customer	Expert	Start Date	End Date	
Advice			6 July 2015	19 July 2015	(Dis-) agree

Go back to the previous page or click again on Proposed Expert in the right-hand menu to agree or disagree with this proposed expert by clicking on (Dis-) agree.

Advice Customer (dis-) agreement of Proposed Expert



If you disagree please motivate your denial so we can look for a better match.

If the expert suits your project but you have another period in mind please submit a new preferred period.

YOU APPROVED THE CV OF THE PROPOSED EXPERT, **HOW TO PROCEED?**

The Project Officer that will handle all operational matters from the office in The Hague in the Netherlands will now complete the match and prepare the travel case for the expert. When we know the flight details the Project Officer will prepare a new activity for you so you can fill in the pick-up information.

When you log in you will find the activity in My Work > Airport Pickup info



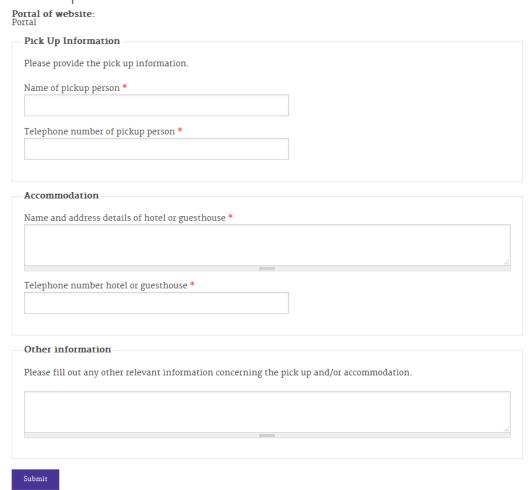
Enter the activity to see the travel information with flight details.

Enter airport pickup info

Customer	Traveler	Arrival date/time	Destination	Flight number	(Return) Departure time	(Return) Flight number	
		2015-09-28 15:35	Yogjakarta	GA 212	2015-10-06 00:00		Provide pickup info

Click on **Provide pickup info**. You can now provide the pickup information for the expert so he or she will know who to look out for and where he or she will be staying.

Pick up Information



AFTER THE MISSION, THE DEBRIEFING

When the mission is completed and the expert has returned to the Netherlands the debriefing form will be online in a couple of days.

You can find the debriefing form on PUMnet in My Work > Debriefing

My Work

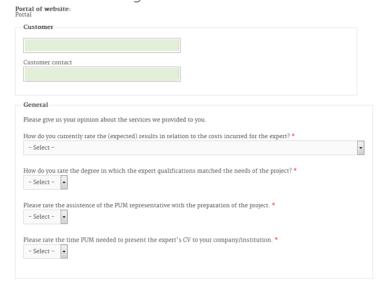


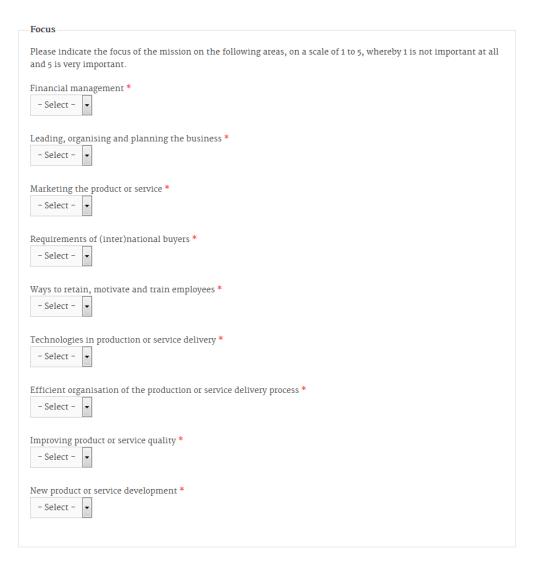
Debriefing



Please be aware that the form cannot be saved online with the intention to finish it later. Leaving the form will delete all your entries. Please read the given information carefully about how to fill in the form so it will take a minimum of your time.

Advice Debriefing Customer







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