

Think big. Act small. Start somewhere

Address by General T.A. Middendorp, Netherlands Chief of Defence, on the occasion of the event Making Waves, on 7 September 2017, Afsluitdijk.

Note to editors: Please check against delivery!

Ladies and gentlemen,

Not so long ago, someone close to me asked me why I was attending today's event...

'You will be leaving office shortly', she said.

'And your diary is overflowing.'

'So why spend time going to a place where people are showcasing innovations with social impact?'

My answer to her was that this is exactly why I want to be present here today.

Because over my almost forty years of service, I have seen how the world has changed.

How the world has become more complex.

More uncertain.

Where we used to face just one threat during the Cold War, we now face many.

The spread of terrorism, the global refugee crisis, droughts, pandemic diseases, food crises, dangerous new technologies...

All of these events affect our lives, one way or the other.

Wherever you live.

And whatever you do.

(...)

We also know for sure that no single power, no country and no international organization can deal with these problems on its own.

Let alone a military force...

... of course, the international community can always call on the military to keep people safe...

... to provide humanitarian aid...

... or to intervene with weapons, when everything else has failed so far.

But my men and women cannot address the root causes of conflict and disaster. Like a water shortage crisis.

They cannot prevent more grasslands turning into barren deserts...

... or stop millions of people fleeing their homes.

The military can only be part of the solution.

So the real solution... requires the efforts of many.

Not only diplomats, politicians, or development workers.

But foremost, the efforts of creative minds.

People who think out of the box.

People, like the innovators present here today.

Because they are needed to invent solutions that can have a tremendous social impact.

The good thing is that ...

We – the military – can help innovators.

We can offer a platform for innovation.

We can help get ideas past the 'promising stage'.

And make sure innovators reach the attention of others.

The only thing we need: is to think big. Act small. And start somewhere.

(...)

Let me try to explain to you what I mean. By using an example from my own experience.

As a young engineer, I learned how to clear minefields.

It was a dangerous and time-consuming job.

You basically lay down on the ground fully focused, and probe the soil, inch by inch.

Because as you know.... mines can be ruthless killers.

And if they don't kill you ... they will for sure cost you an arm, a leg, or a foot.

I experienced that later in my career, as commander in Uruzgan, in Afghanistan.

Never will I forget the images of a ten-year old boy lying in a hospital bed with a gap where his leg should be...

...a boy who just the day before picked up a toy car containing an explosive.

Or the image of an old woman with no foot, and bandages around her leg...

...who just the day before walked to the market to buy food.

Those experiences showed me just how mines really are the 'worst soldiers'.

And the worst thing is... there are still millions of unexploded mines out there.

Scattered over 98 countries and territories worldwide.

In Bosnia and Herzegovina, for instance, more than a hundred thousand mines are buried along the former front lines.

Nearly two decades after the war.

Still killing and injuring people.

Including children.

They are victims of a war that ended long before they were born.

So we need people who can come up with smart and new ideas to deal with this threat.

(...)

That is exactly why I invited the Hassani brothers to my office last month.

You may not know them, but they fled Afghanistan nineteen years ago.

And they now live in the Netherlands, where they dedicate their lives to the clearing of landmines.

Here they are...

Massoud - on the left - is now 33 years old. And his younger brother – Mahmud – is 30 .

When they were kids, they saw their friends in Afghanistan lose limbs to land mines.

They saw their friends killed ... by landmines.

That is why they are so dedicated. Why they want to make a change.

(...)

But how...? You may ask.

Well, they first invented a giant ball, shaped like a blue octopus, that rolls around with the wind.

With its bamboo stalks and plastic disks, it can roll around dangerous areas, detonating mines.

This ball, however, was too light.

So they had to come up with a better approach.

That is why, for the last three years, the brothers have been developing a mine-hunting drone.

Together with a team of 21 young engineers from all over the world.

Today, this drone is not only able to fly over a mined area...

... but it also generates a detailed 3D map with a built-in aerial mapping system...

... it uses a metal detector to pinpoint any landmine...

... place a detonator on top of the mine with its robotic arm...

... flies away, and 'BOOM'... let the explosive do the work.

According to the brothers, these capabilities make the drone - not only safer, but also twenty times faster than existing devices.

AND... two hundred times cheaper than traditional demining methods.

Can you imagine...?

It means this mine-hunting drone can be a real lifesaver!

(...)

But before they can actually prove this, the brothers need to finish their prototype and start testing it with real landmines.

And that is where I can help...

I offered Massoud and Mahmud the opportunity to test their drone regularly at one of our military test facilities.

Where they also have the chance to talk to my military experts. To further improve their innovation as they go along.

To live their dream, to help clear all 110 million landmines worldwide.

(...)

Ladies and gentlemen,

Think big, act small, start somewhere.

That is what the Hassani brothers did.

And that is what I am trying to do by offering them our test facilities, our network and our military knowledge.

But this principle can be applied to any challenge the world is facing.

Let me give you one more example.

Six months ago, we – the Dutch Ministry of Defence – organised the *Future Force Conference*.

We invited twelve hundred people from all over the world. And from all walks of life.

Not just military personnel, policy makers, researchers, and CEOs...

But also white-hat hackers, architects, economists, students, social scientists, and artists.

So they could meet, connect, and spread ideas.

In fact, I told everyone during the conference, that “no matter how far-fetched their ideas were... we should all be willing to at least listen to them”.

But the funny thing is... I had to remind myself of that.

Because during a coffee break, a man approached me...

And he asked me:

'General, what if we were able to produce water out of thin air, in the middle of the Sahara desert - the driest, hottest place on earth'...

'...just by using the sun?'

Then he fell silent, and looked at me with a twinkle in his eye. Waiting for my reaction.

I smiled at him, and said:

'Sir, it sounds fantastic.... hopefully - one day – you'll manage to do so'.

And I turned around.

But then I realised, I needed to practice what I preached.

So I turned back to him, and asked him to explain what he was talking about.

He told me enthusiastically he was a Dutch artist, named Ap Verheggen.

And he wanted to make a device that could extract water from air.

Solar-powered.

'*SunGlacier* technology', he called it.

And it was certainly not meant to be 'just art'.

No, this man believed his technology was the solution to overcome any water shortage crisis...!

So... I told him:

'Listen, I would like to offer you the opportunity to test your technology at our military base in Mali'.

Now, I don't think he believed me at that moment. 😊

Because he looked surprised, nodded, and gave me his card...

But few weeks later, when he was invited by my staff to plan this trip, he knew for sure.

He and his colleagues were going to Africa, to Mali.

It was for real!

(...)

Think big, act small, start somewhere. Again, that is what it's all about.

For Ap, the artist.... 'thinking big' means trying to solve water scarcity ...

... his act is to build a device that can extract water from hot and dry air...

...and our common start was the Mali field test.

For the Hassani brothers... 'thinking big' means clearing all landmines worldwide...

... their act is to construct an inexpensive mine-hunting drone...

...and our common start is at our engineers test facility in the Netherlands.

For me, 'thinking big', means contributing to a more secure world...

... my act – in this case - is to offer the defence organisation as a test facility...

... and my start is with Ap and the two Afghan brothers.

(...)

And the great thing is, this principle does actually work! It does lead to something bigger.

The experiment in Mali, for instance, provided valuable field-testing results.

Because Ap – the artist – was able to extract water from desert air! Despite the extreme dry and hot conditions,

And he learned new things.

For example:

In Mali, he noticed that the water he produced evaporated before it fell in his reservoir.

So back in the Netherlands, he worked hard to find a solution.

The result? More water!

So now, as one of today's contestants, he is going to share his new innovation with us in just a few minutes.

(...)

But all today's contestants have invented great and inspiring innovations.

They are all unsung heroes, who keep the new generation in mind.

And with mine, and other people's help, these innovations could get past the 'promising stage'...

That's why you were invited here today. That's what *Ideas from Europa* and *Making Waves* is all about.

So ladies and gentlemen, let's not walk the path of peace alone - thinking our worlds are too far apart.

Let's think big, act small and start somewhere!

And to all social innovators present here today, I would like to say:

Don't hesitate.

Don't wait.

Just tell everybody, every organization, how they can help.

How to help you, but most importantly, to help others worldwide who need your innovation.

So that together we can indeed find solutions for the challenges we all face.

And make this world a little safer.

For everyone.

(...)

Thank you.

-0-0-0-