Preface international Conference on Ocean, Climate and ecosystems and Preface final assembly




first Day: opening
Welcome!
Preface
kroaak!
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Preface Paved the Way to the development of Climate Services

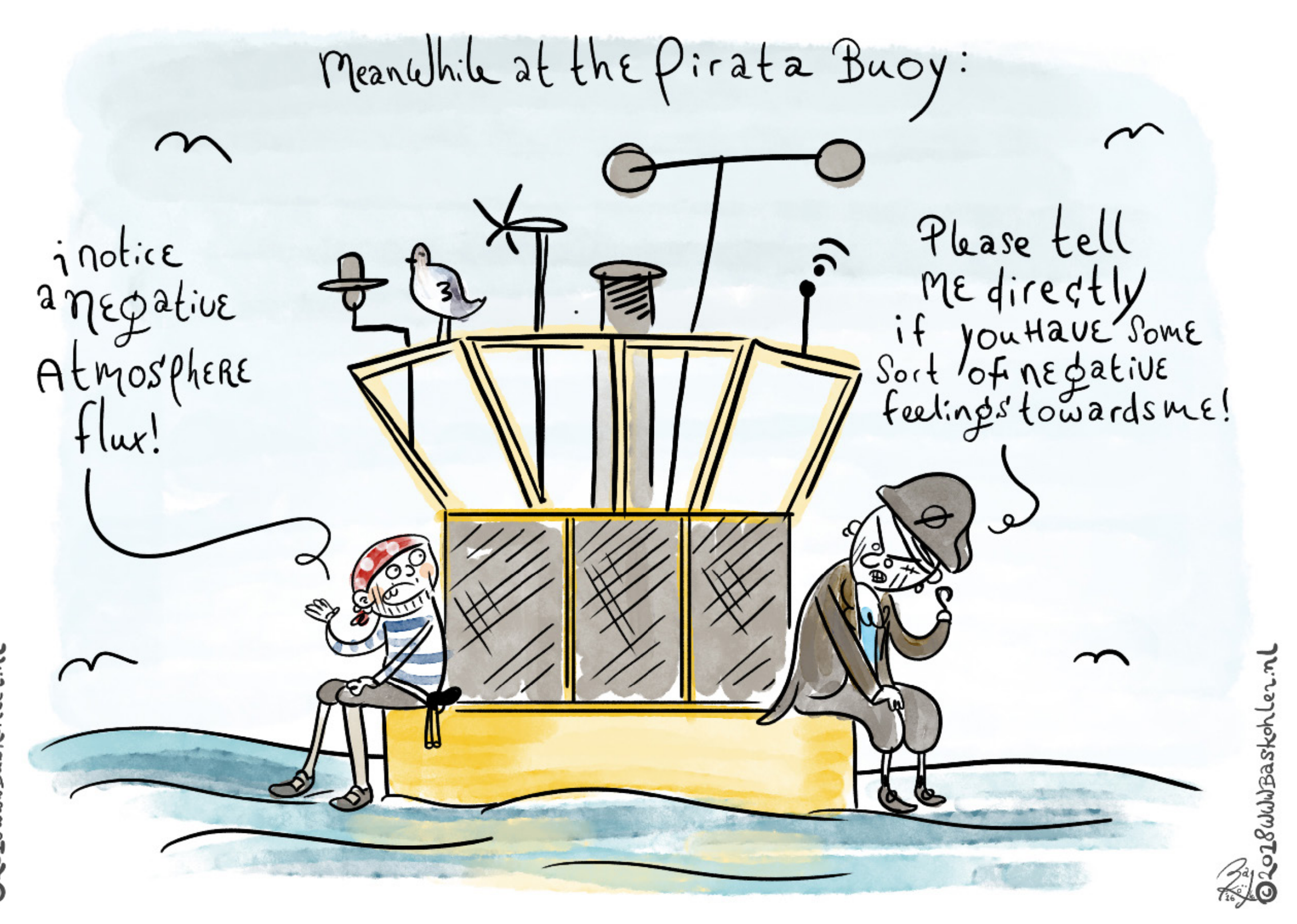


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interesting
towork
With this
Pirata!
i Want
Data!
Woehaahh!
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Hi! i'm Kelvin the Wave!
oh no!
next to all this rikos and rikas visiting us!
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look!
we are invited
to a
Benguela
Warming event!!
event!
Benguela
Join!
Good to know!
i'll move
for a while to
cooler places!
ciao!
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Meanwhile at the Pirata Buoy:
i notice a negative Atmosphere flux!
Please tell ME directly if you HAVE Some Sort of negative feelings towards ME!
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Whats Going on with that model?
She's Corrected By Some Windstress!
ooooh my hair!
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Hey
What are
you listening to?
Hey i'm
Analyzing
Micronektonic
acoustic
Density man!
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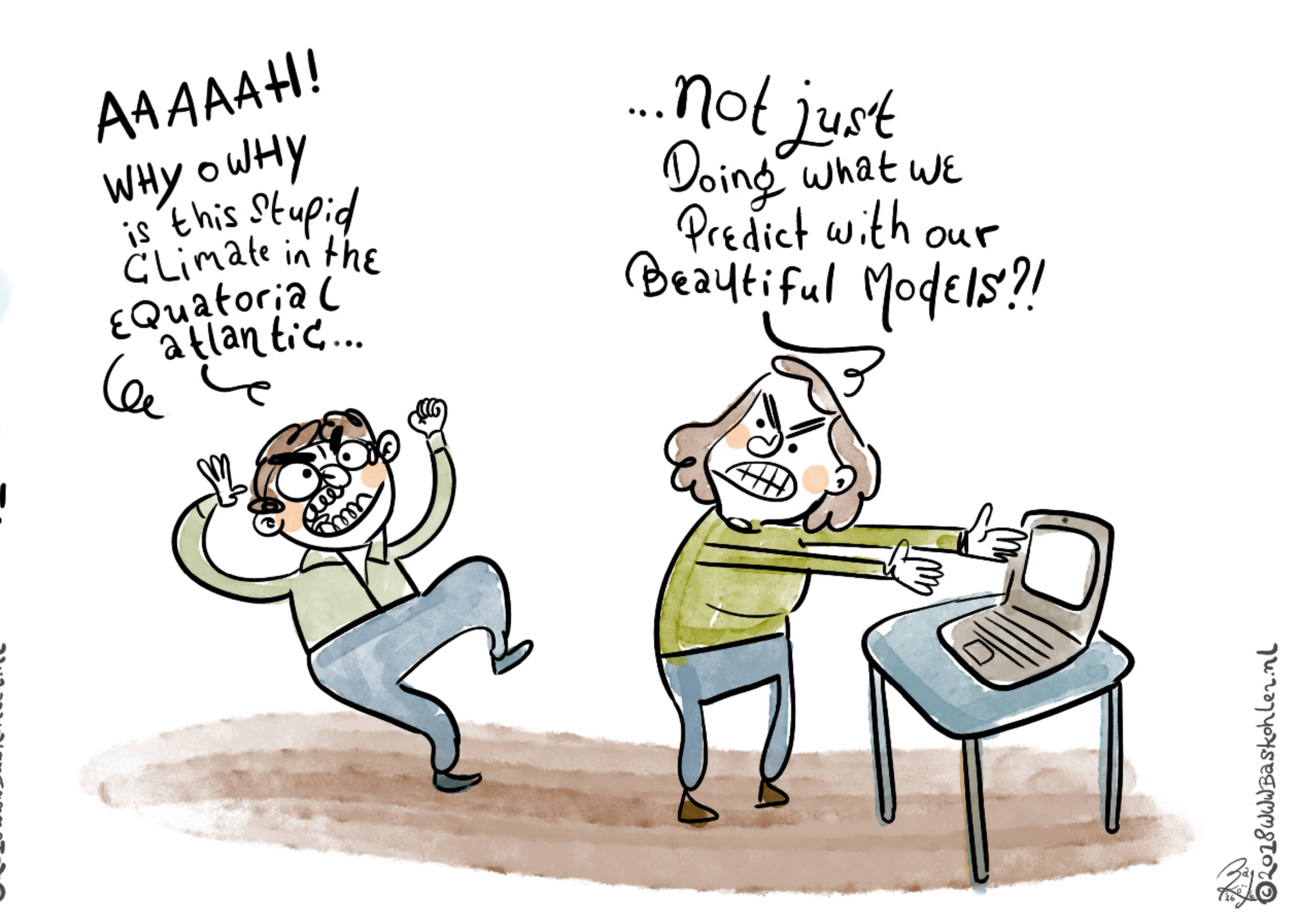
Climate Prediction in the atlantic

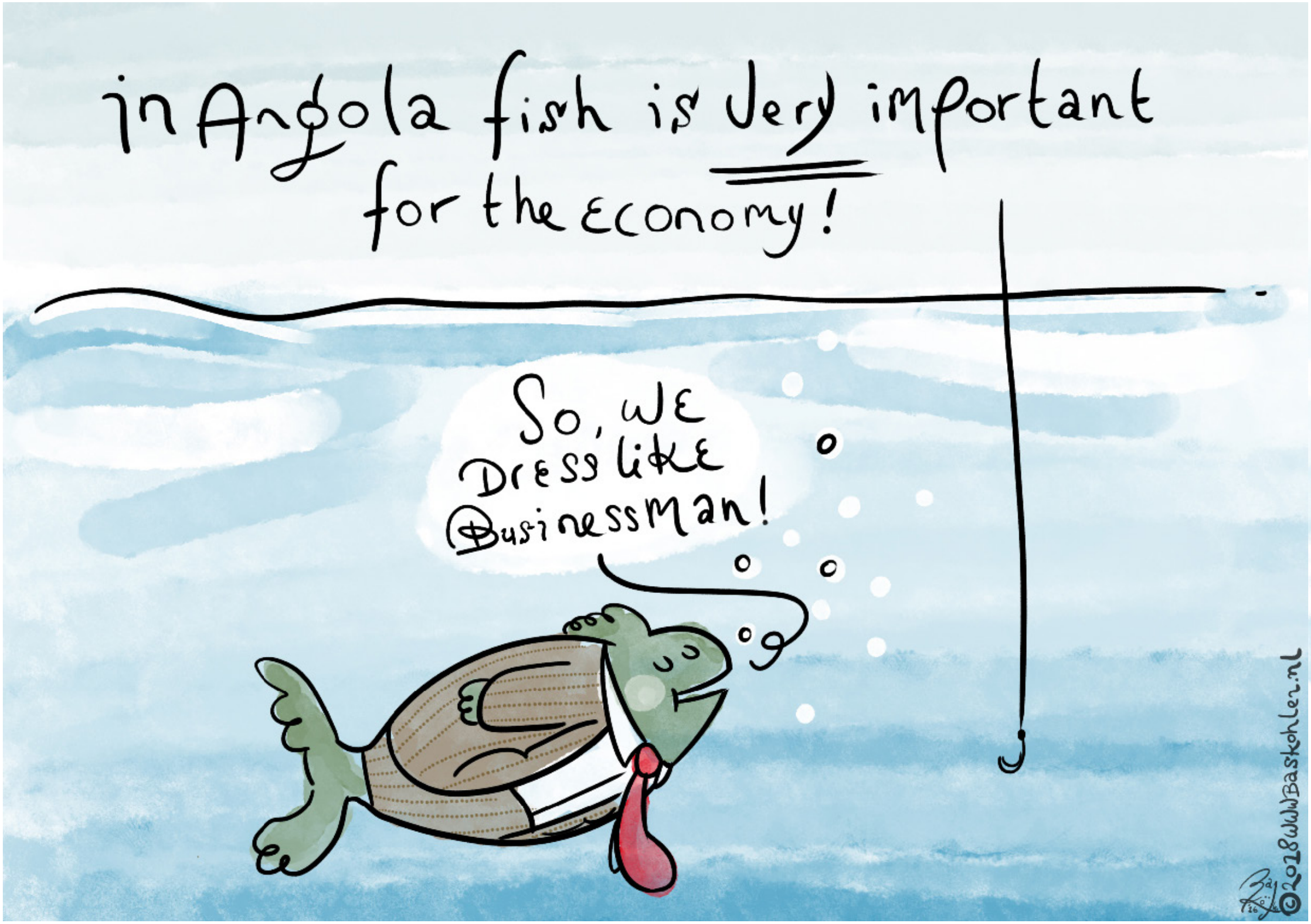
for fishes:
the surface of your habitat will heat a bit. this is your Lucky Day As some fresh cold Weather will be Delivered by a Current...

Come on! do you believe in these Horoscopes?!

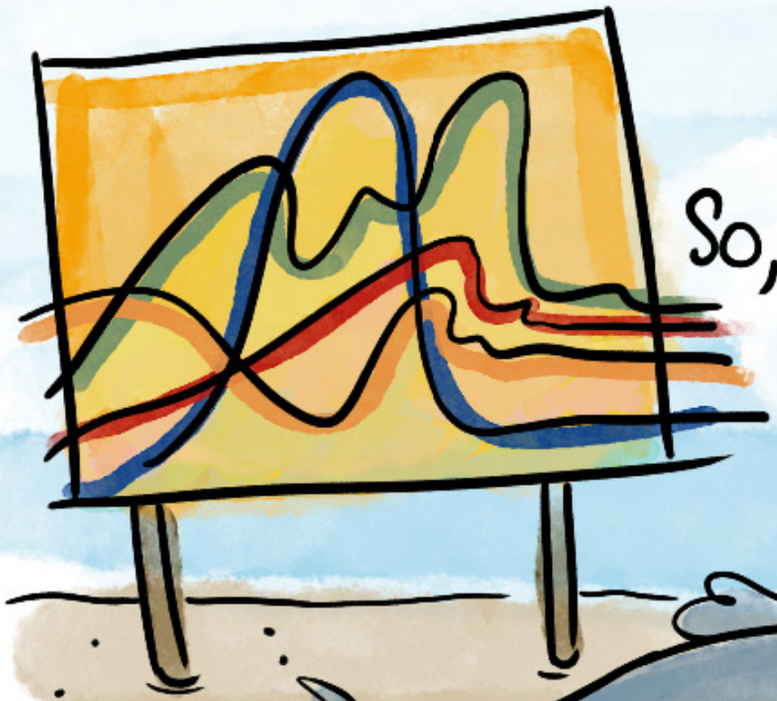


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AAAAAH!
WHY oWHY
is this Stupid
CLimate in the
eQuatoriaL
atlantiC...
...Not just
Doing what we
Predict with our
Beautiful Models?!
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in Angola fish is very important for the economy!
So, we Dress like Businessman!
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About the Seasonal Variability of the Angola current



So, $t_R = \frac{4 \cdot L}{m \cdot Gn}$

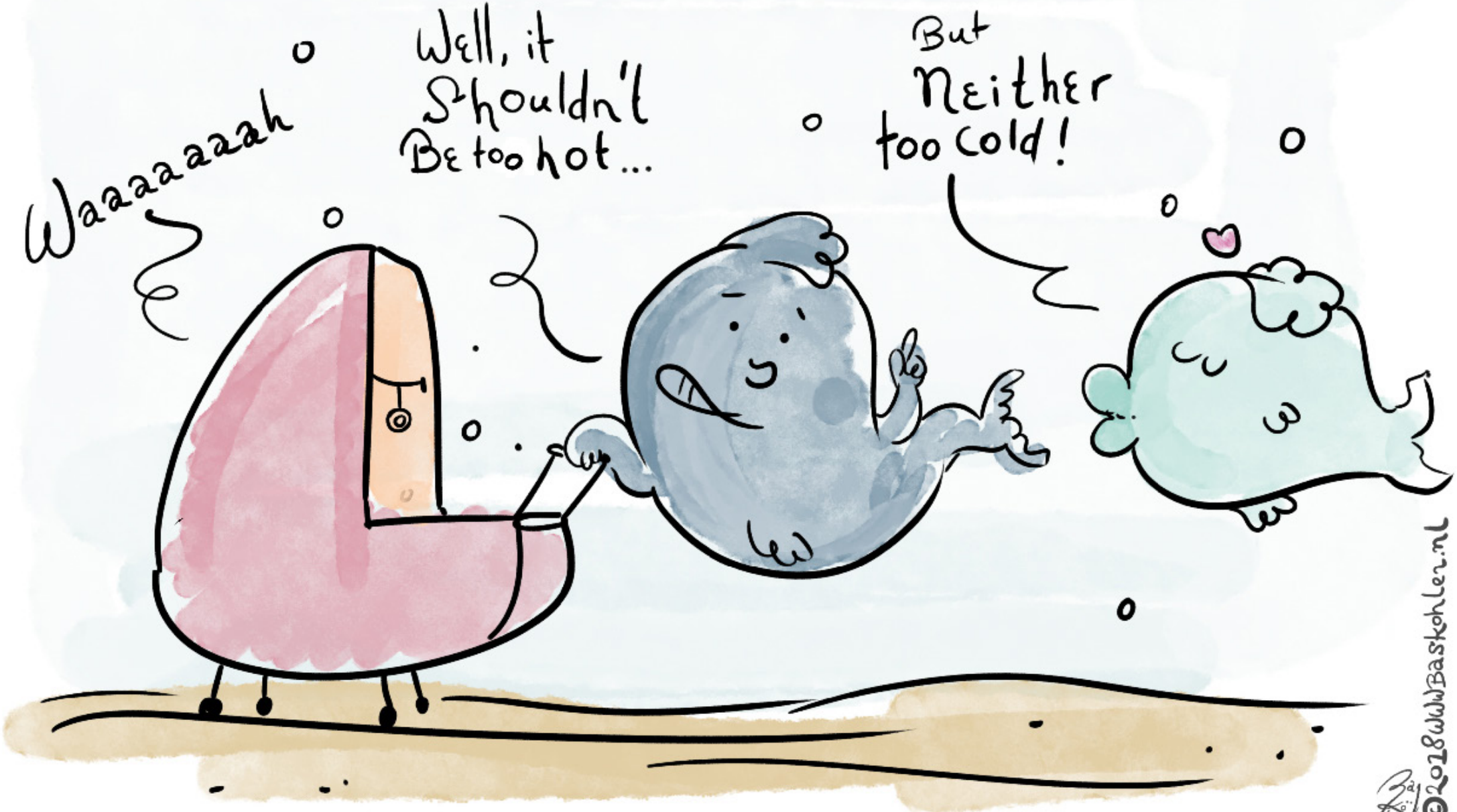
?

i think i'll go back to school...

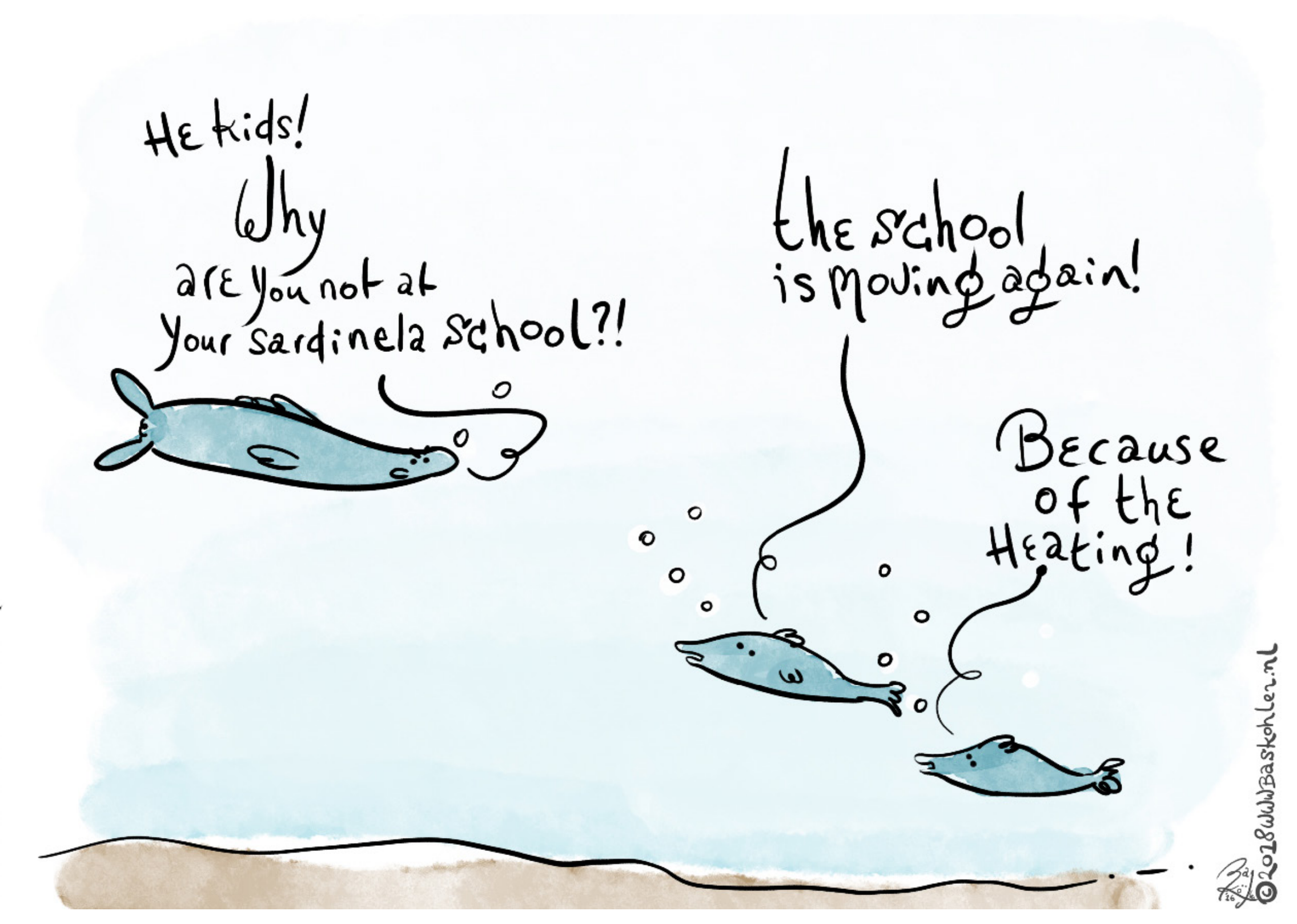
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Explaining larval fish habitats



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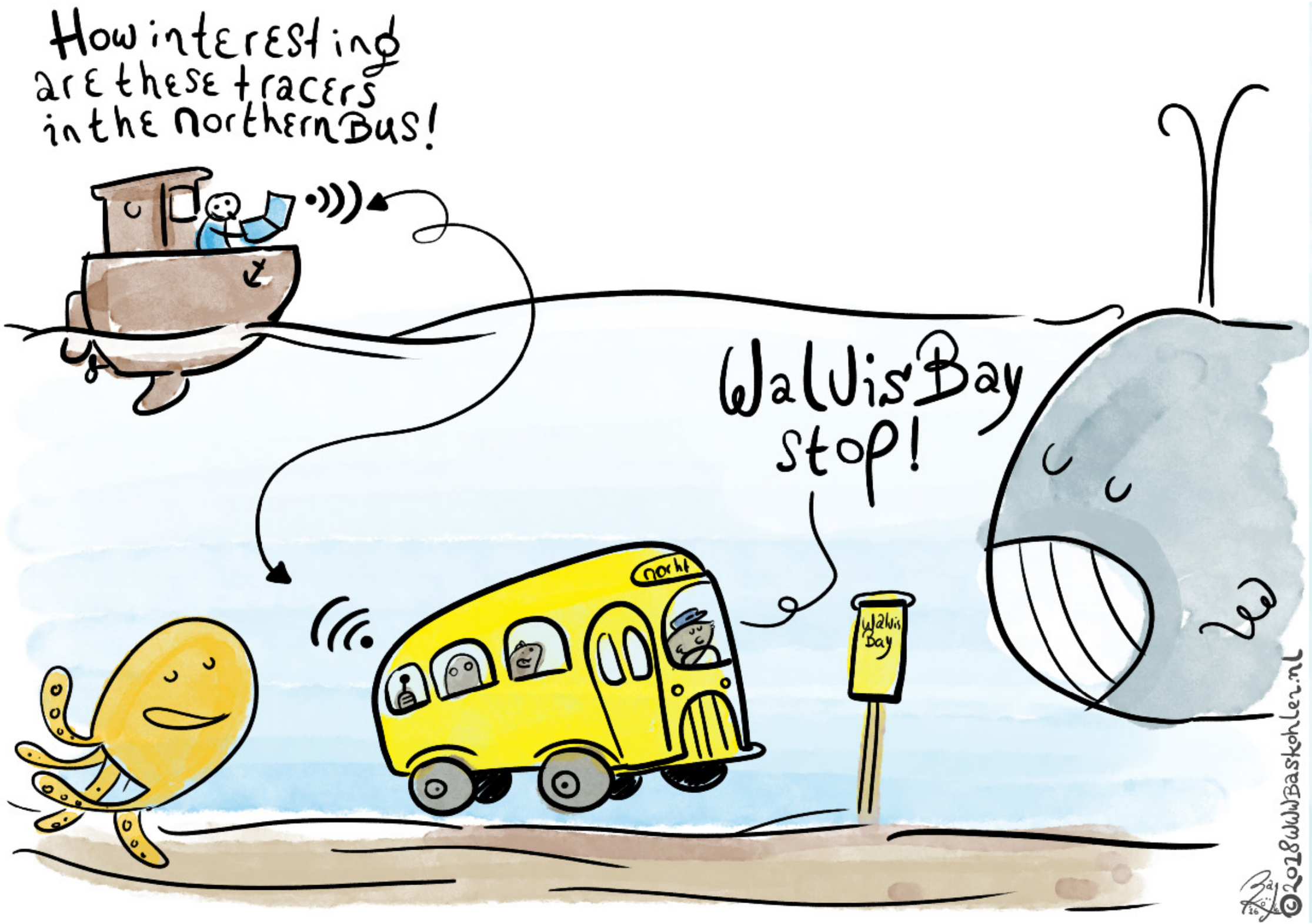

He kids!
Why are you not at your sardinela school?!
the school is moving again!
Because of the Heating!
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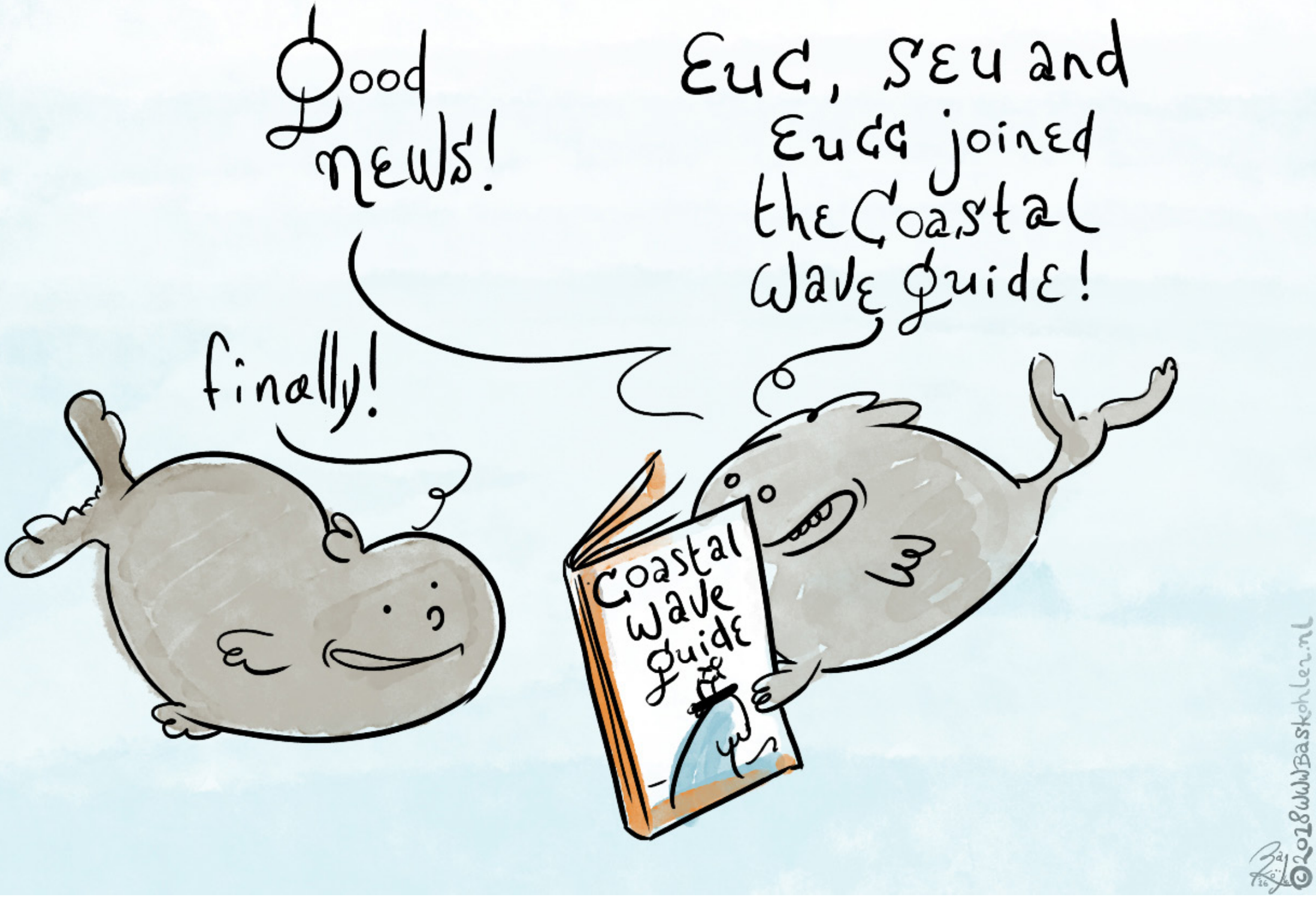
Main Worry in Senegal:



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Yeahhh!
Semi-Annual
What's that?!
?
it's the Angola Current on a Semi Annual Cycle!
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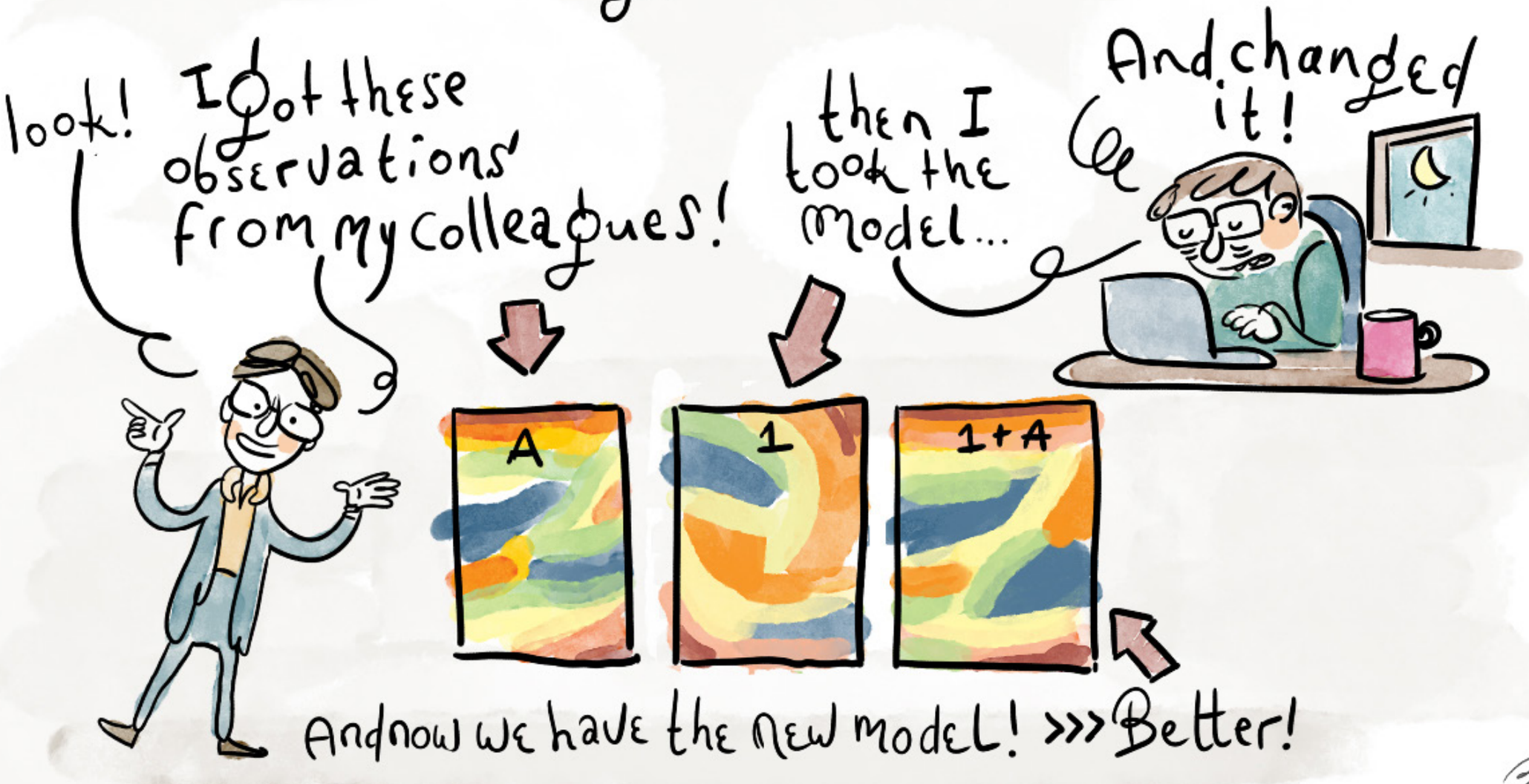

How interesting are these tracers in the northern Bus!
Walvis Bay stop!
north
Walvis Bay
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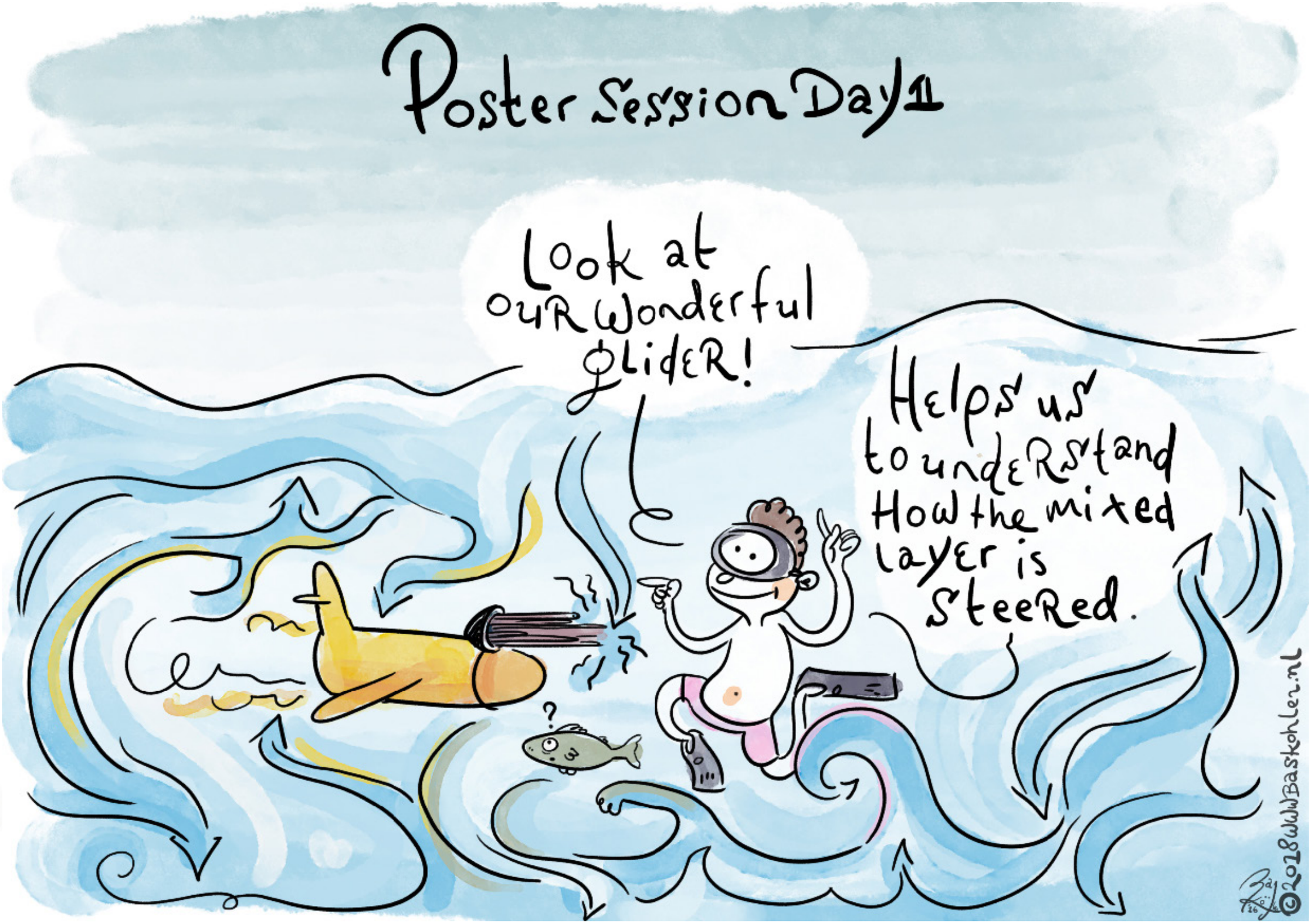
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Poster Session Day 11

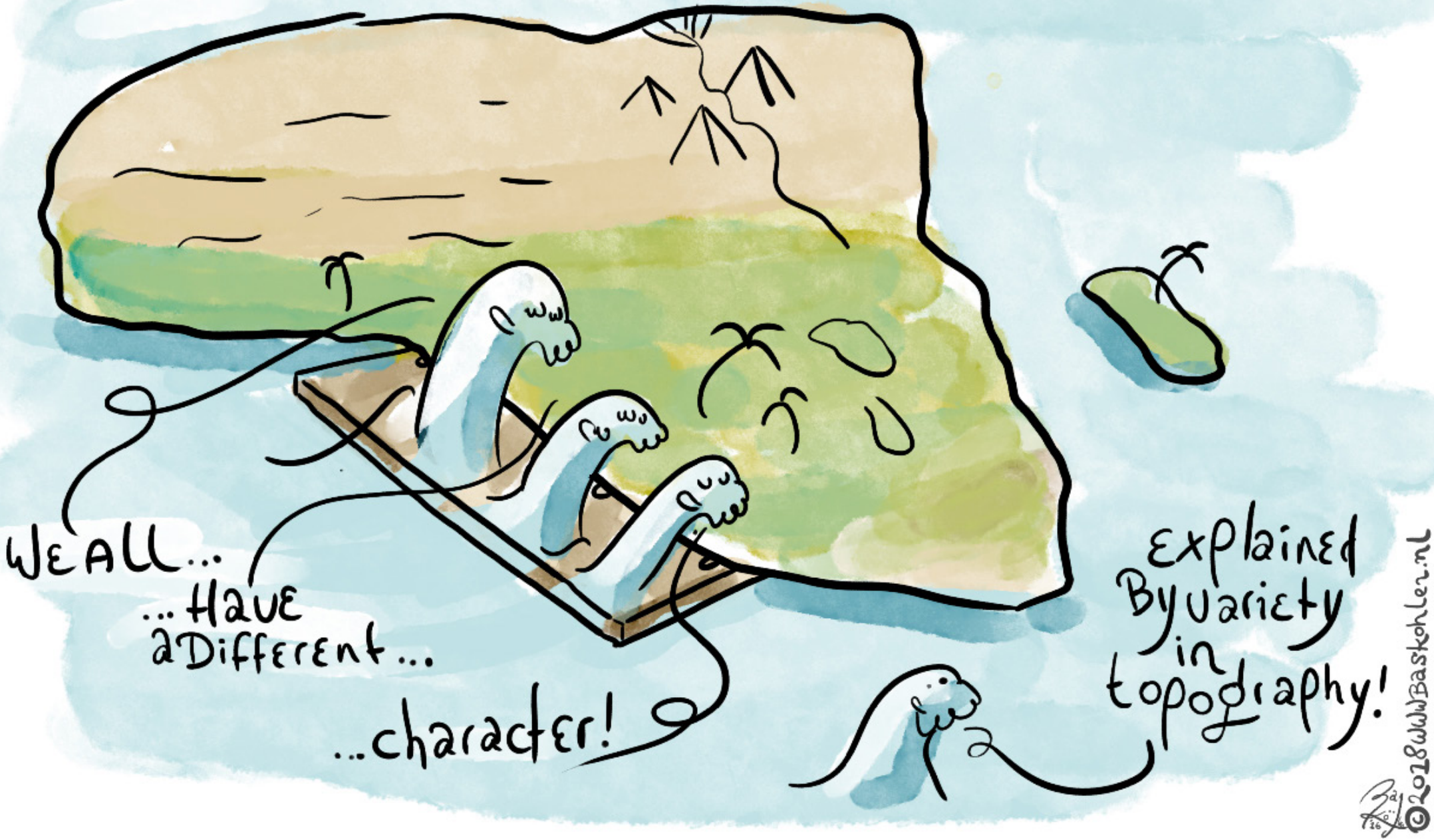
about interannual variability in OGCM



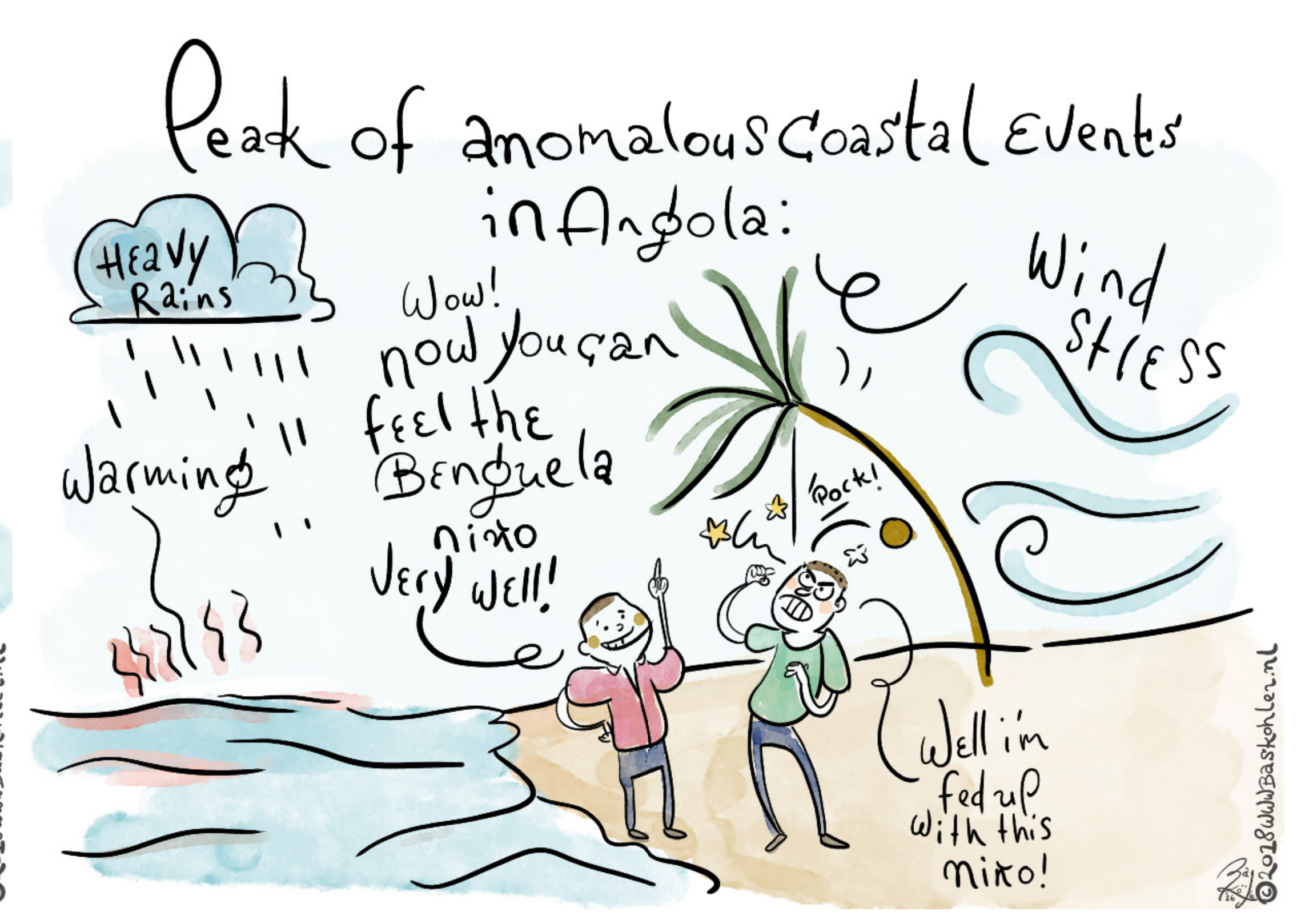
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Poster Session Day 11
Look at our Wonderful Glider!
Helps us to understand how the mixed layer is steered.
?
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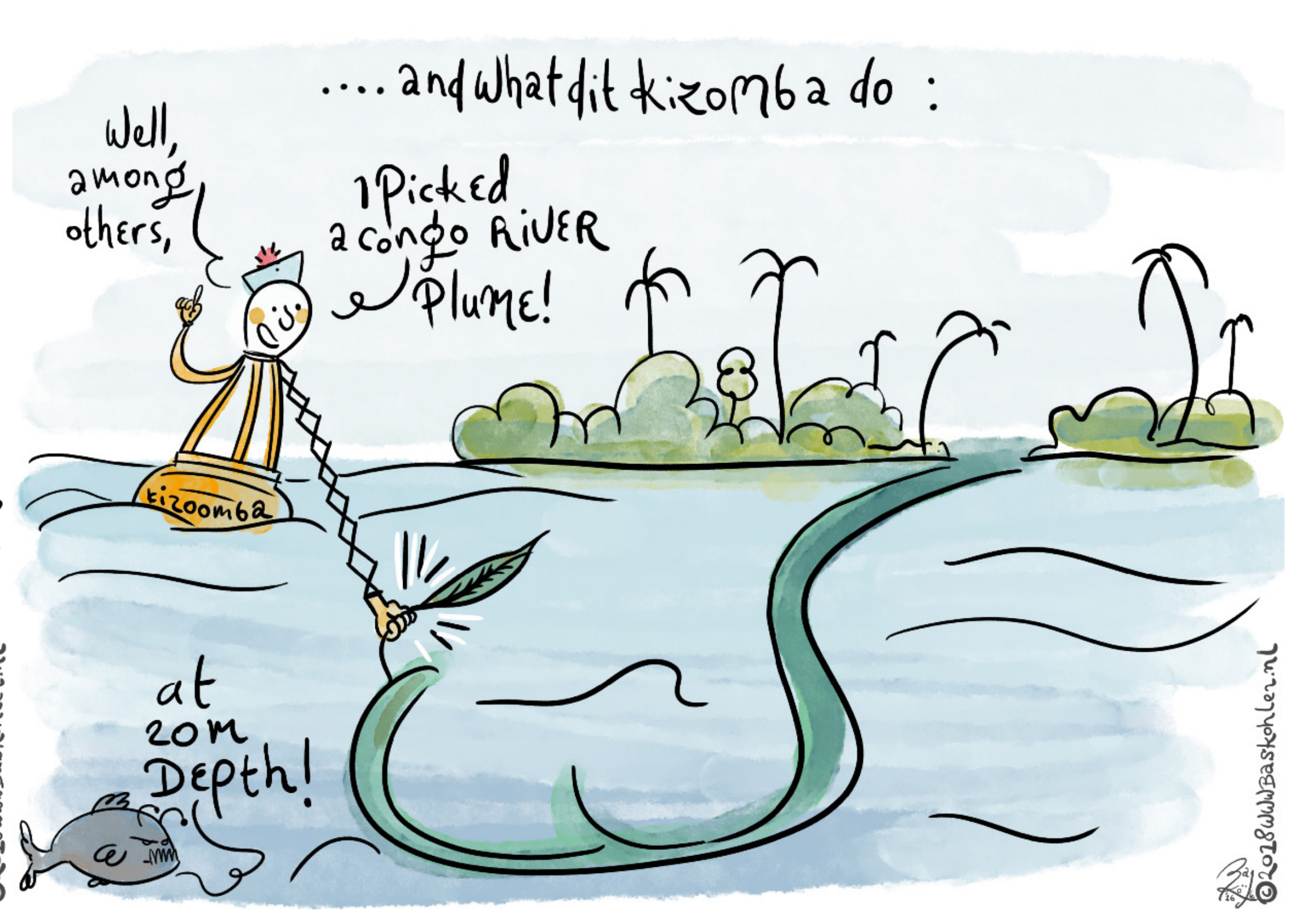
Continental Shelf Waves:

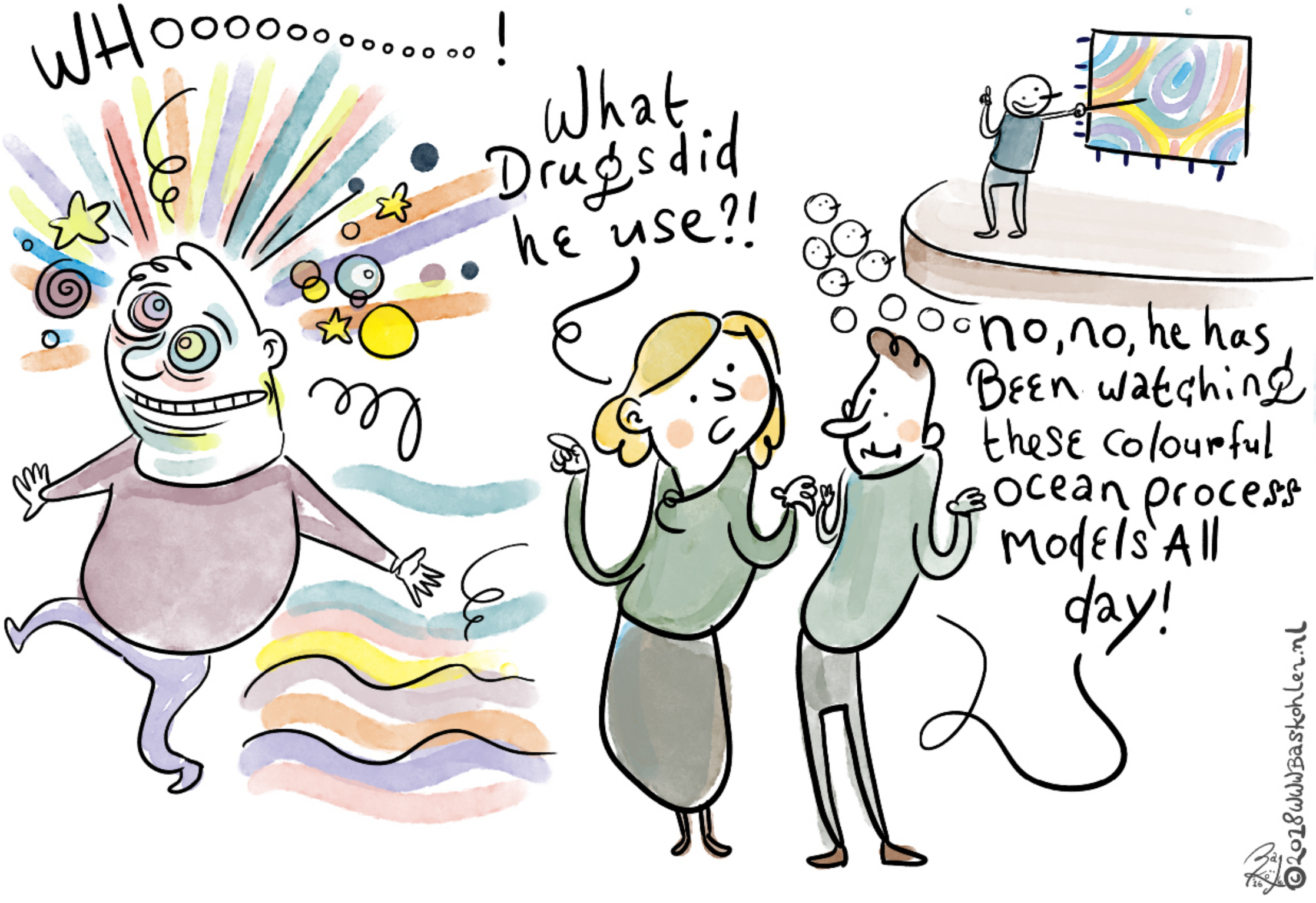


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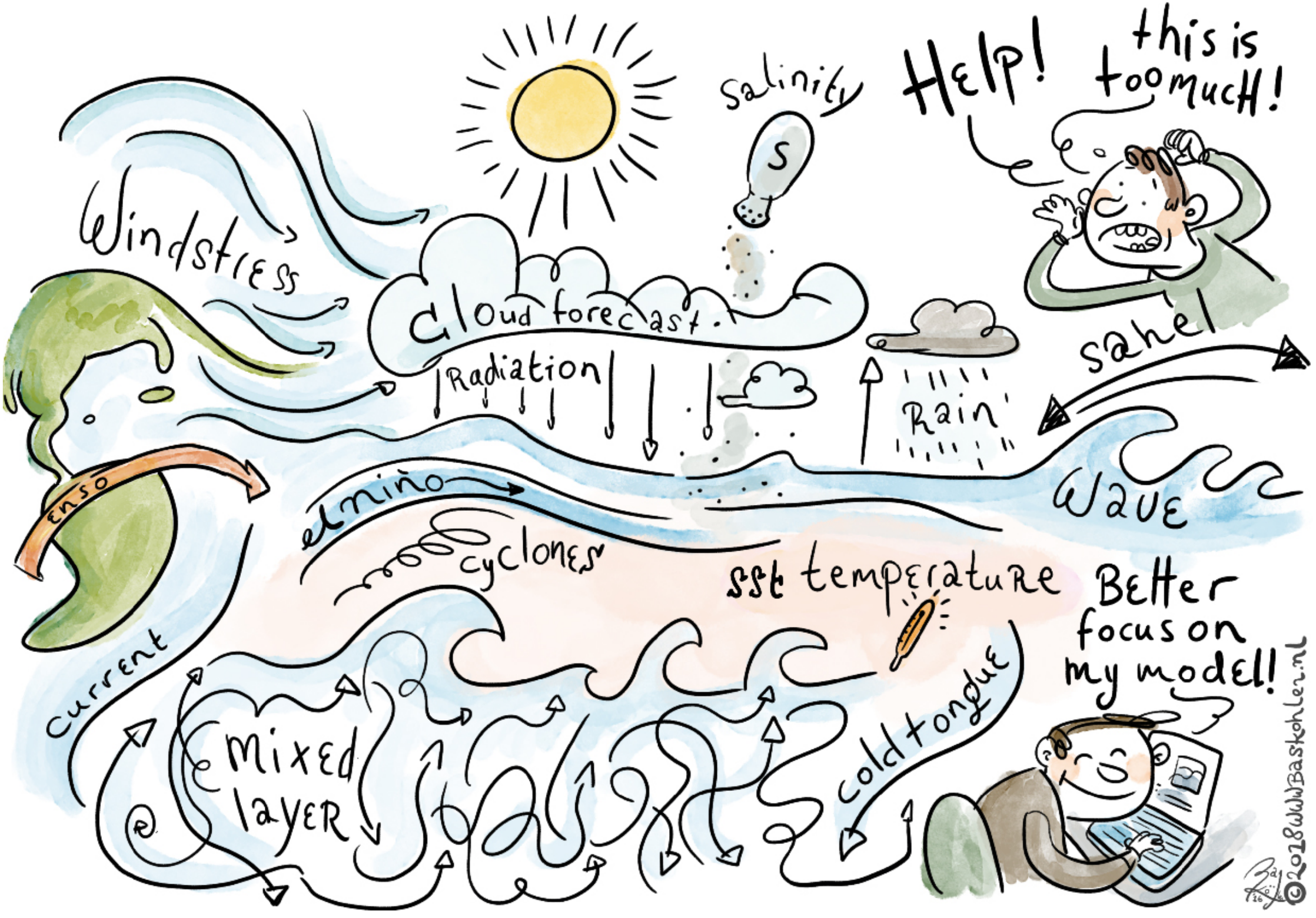

Peak of anomalous Coastal Events in Angola:
Heavy Rains
Warming
Wow! now you can feel the Benguela niño very well!
Wind Stress
Rock!
Well i'm fed up with this niño!
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About South Eastern Atlantic VARIability:
With trapped waves and local wind!
Ohlálá!
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.... and what dit kizomba do :
Well, among others,
I Picked a congo RIVER Plume!
kizoomba
at 20m Depth!
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WHOOOOOOOOOOO!
What Drugs did he use?!
no, no, he has been watching these colourful ocean process models All day!
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it's too big!
if you cannot measure it...
...just model it!
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Windstress
Salinity
S
Help!
this is toomuch!
Cloud forecast
Radiation
Rain
sahel
ENSO
elniño
Wave
cyclones
SST temperature
Better focus on my model!
current
Mixed layer
cold tongue
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Poster Session Day 1



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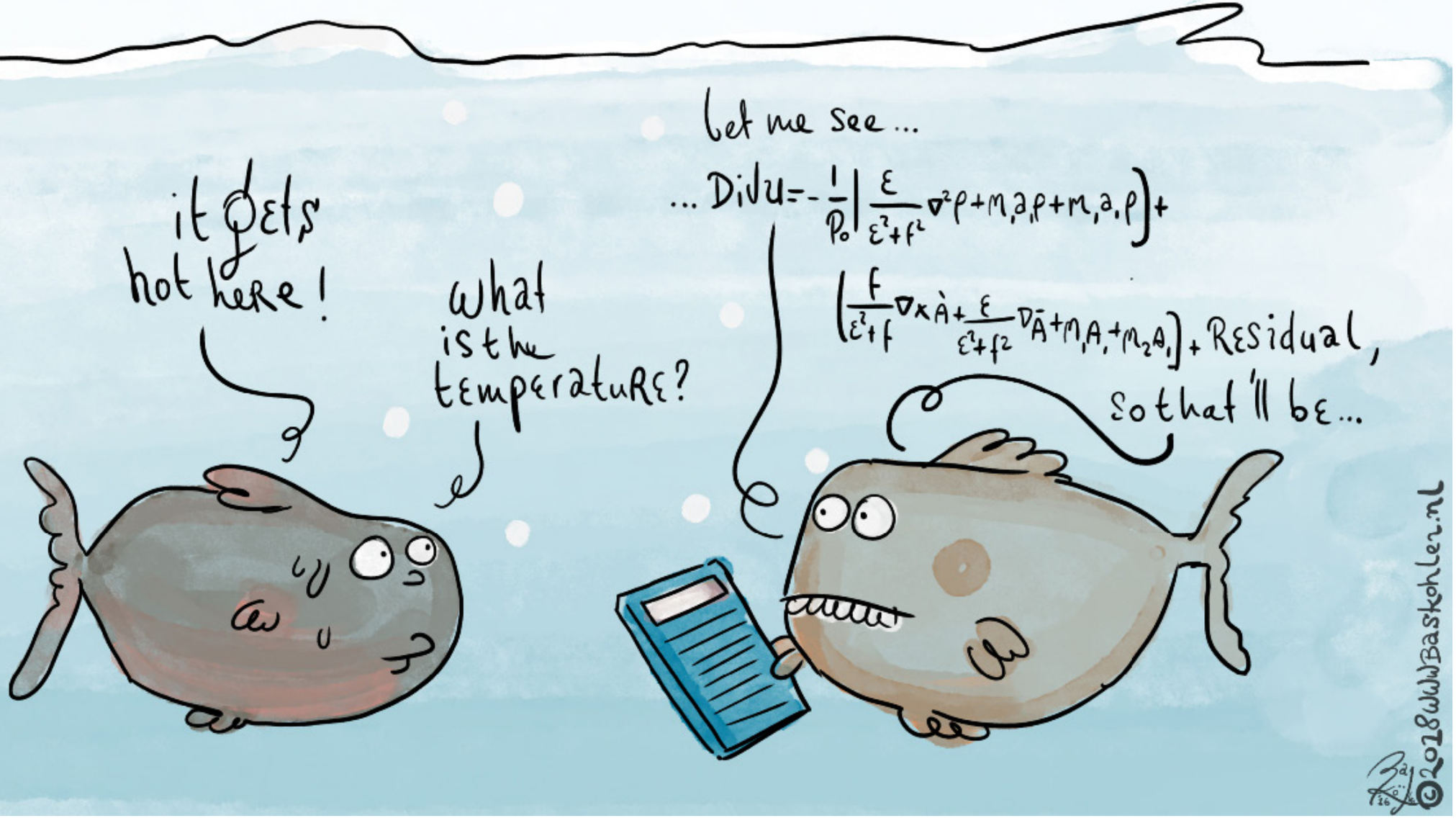
Second Day: More About

models & observing & Analyzing!



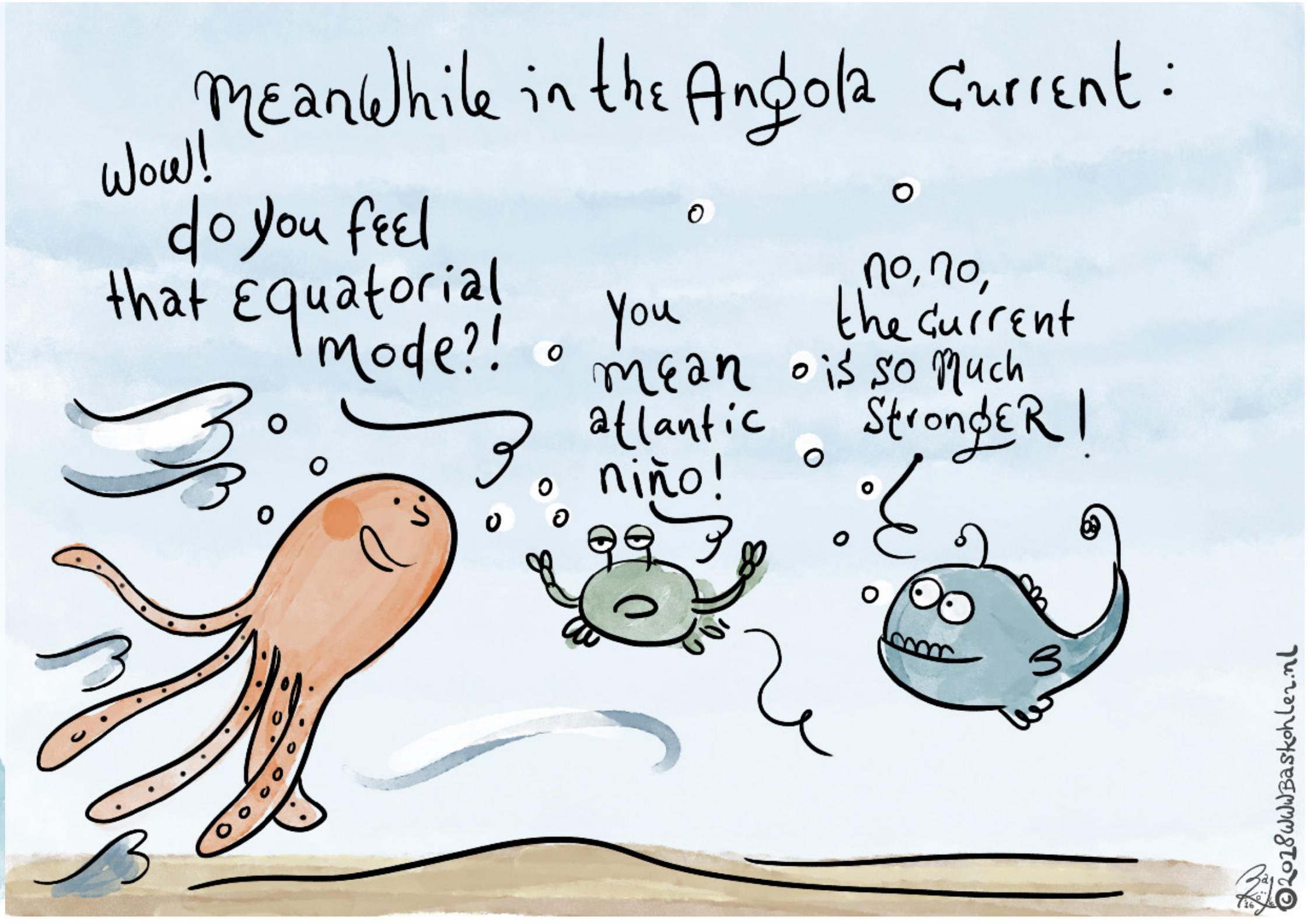
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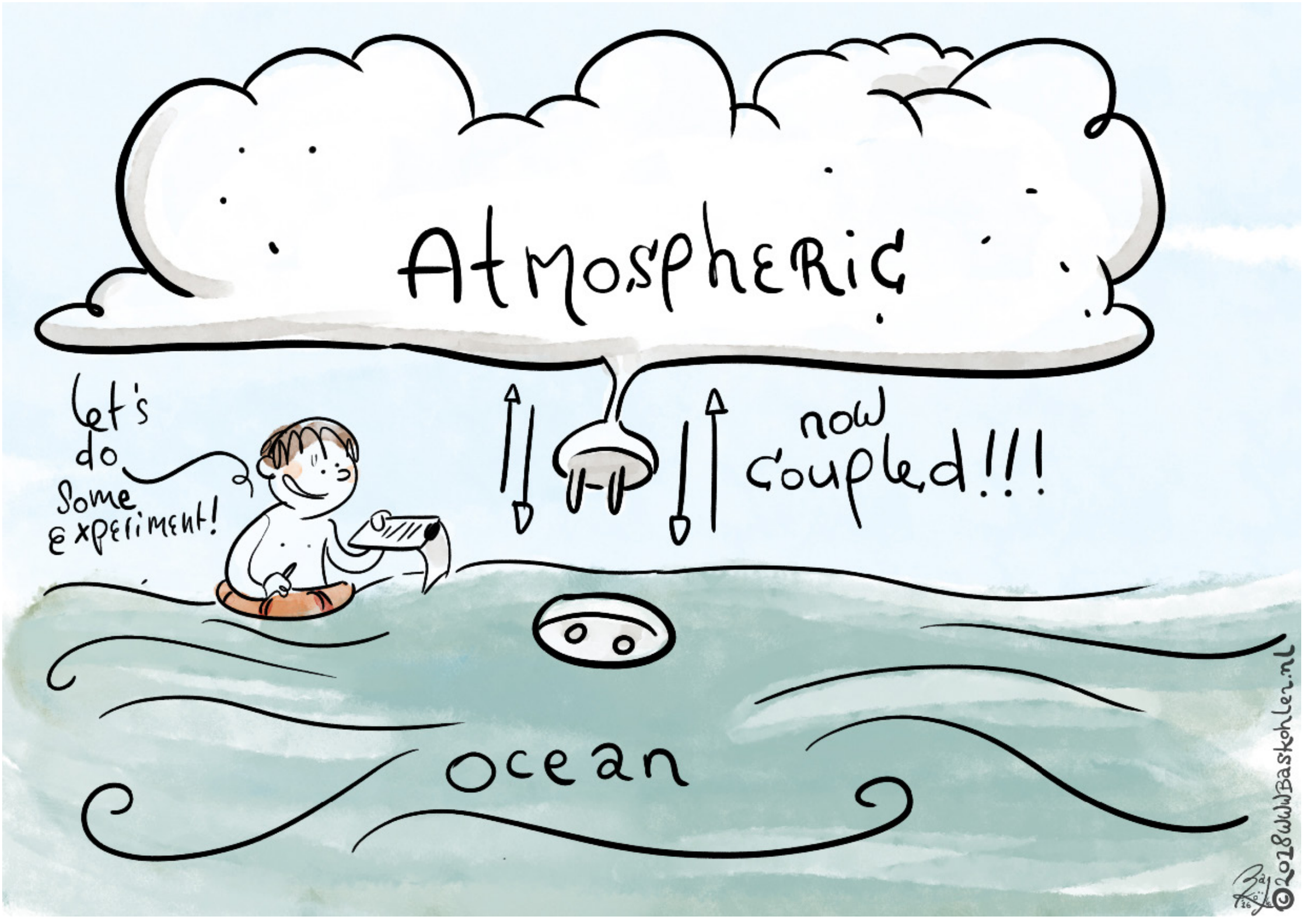
Using the katekama Method:



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With this surface temperature...
I might predict the wind!
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Meanwhile in the Angola Current:
Wow! do you feel that equatorial mode?!
you mean atlantic niño!
no, no, the current is so much stronger!
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Atmospheric
let's do some experiment!
now coupled!!!
ocean
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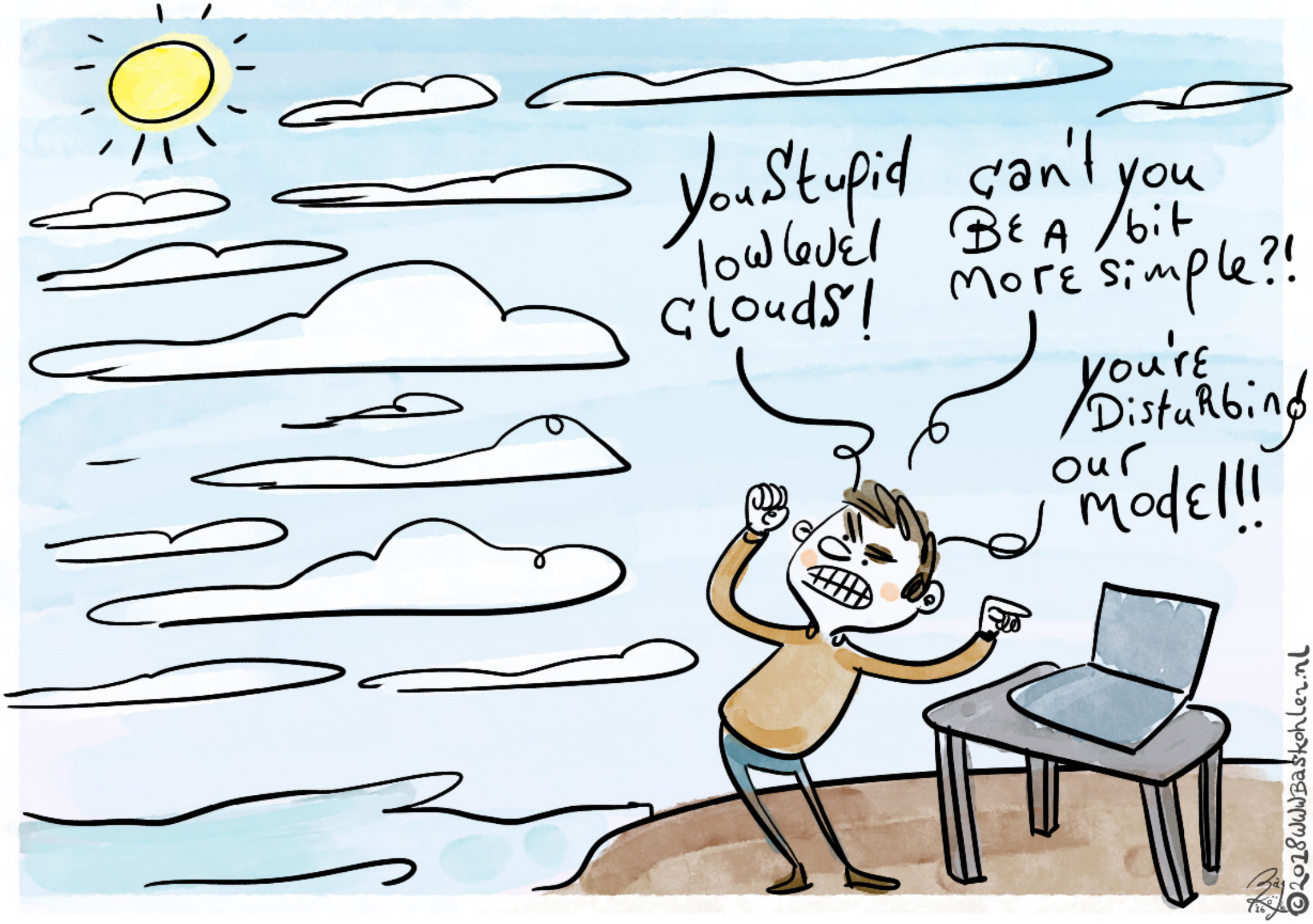
So now let's see
What will Happen
when we increase
the salinity A bit

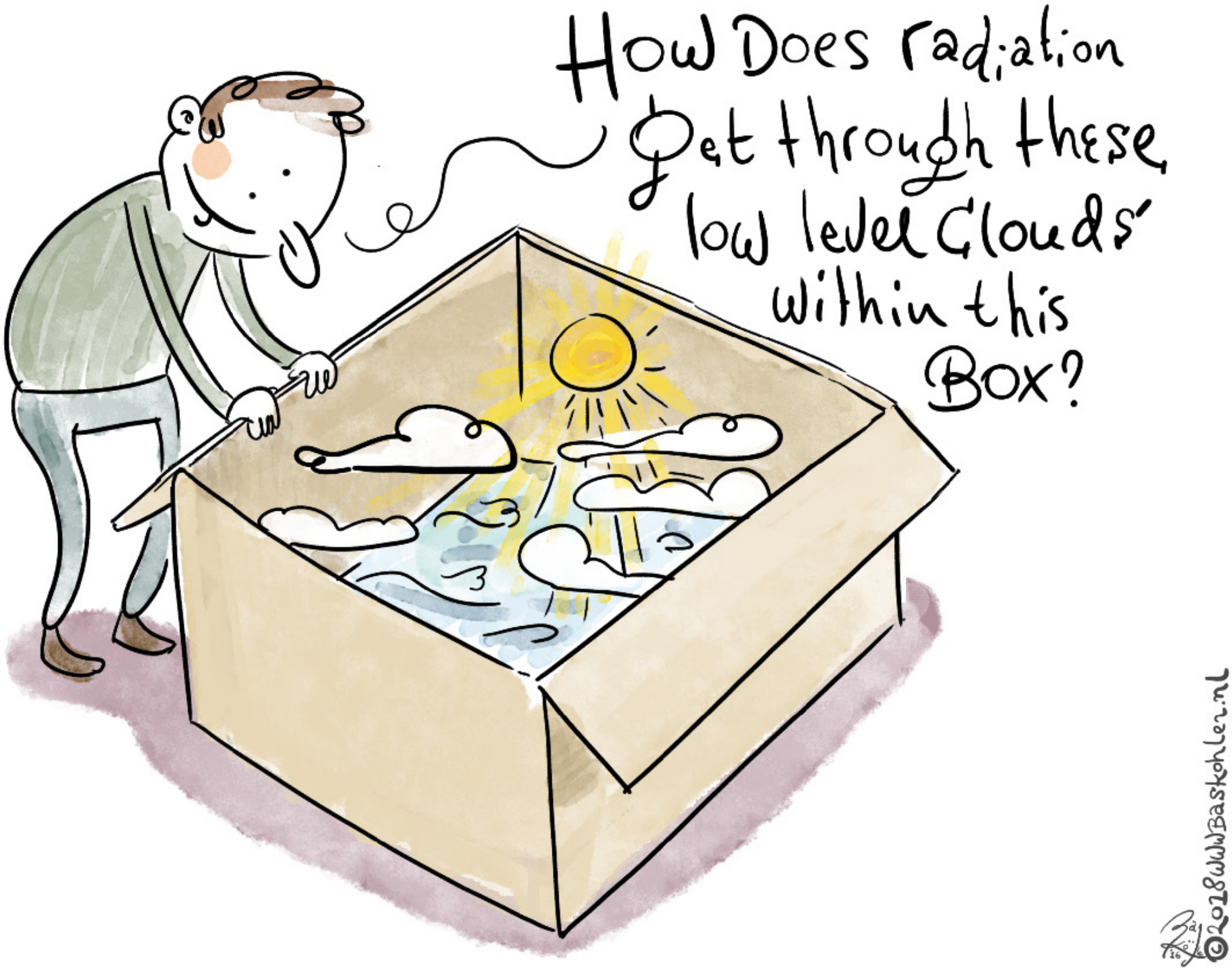


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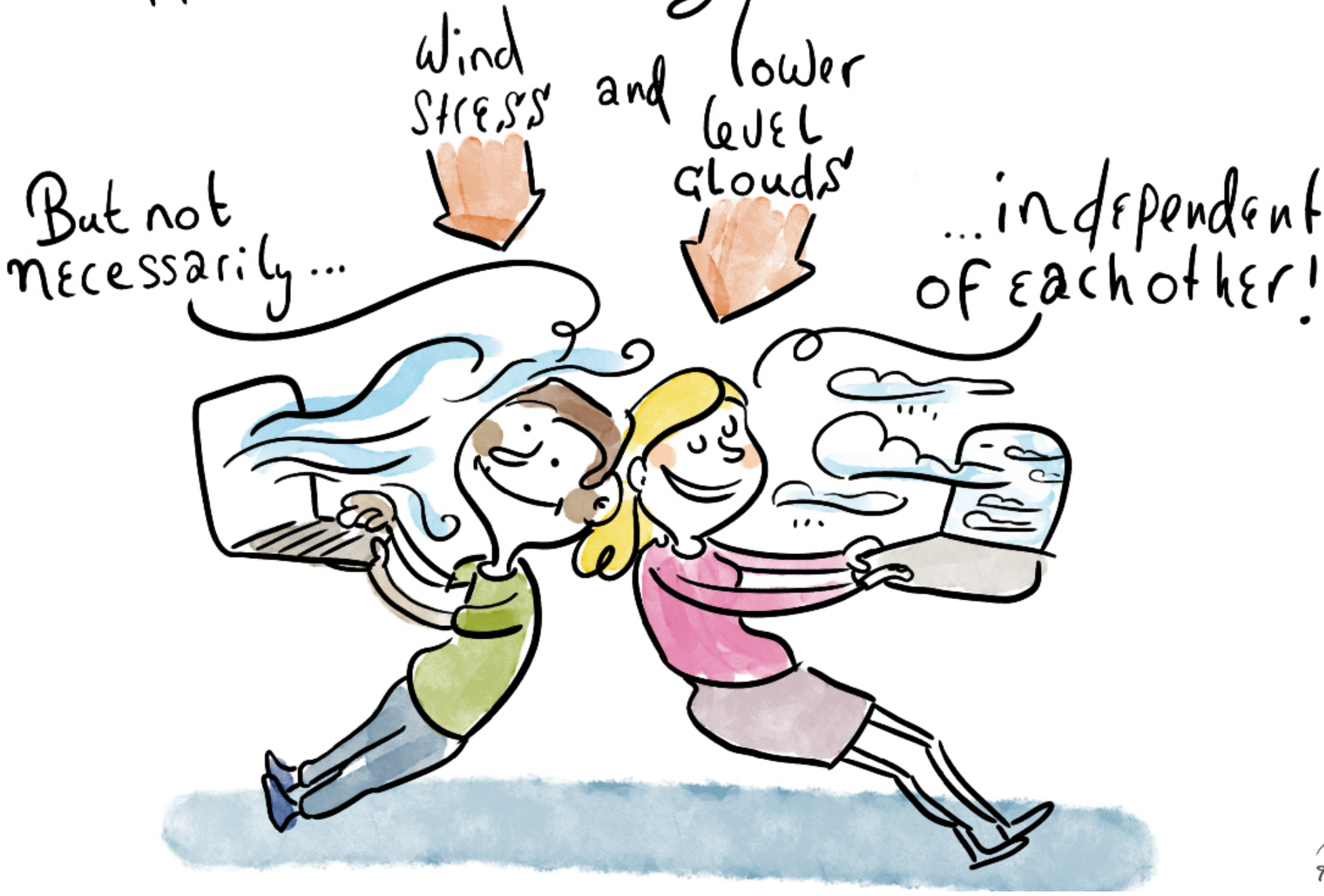


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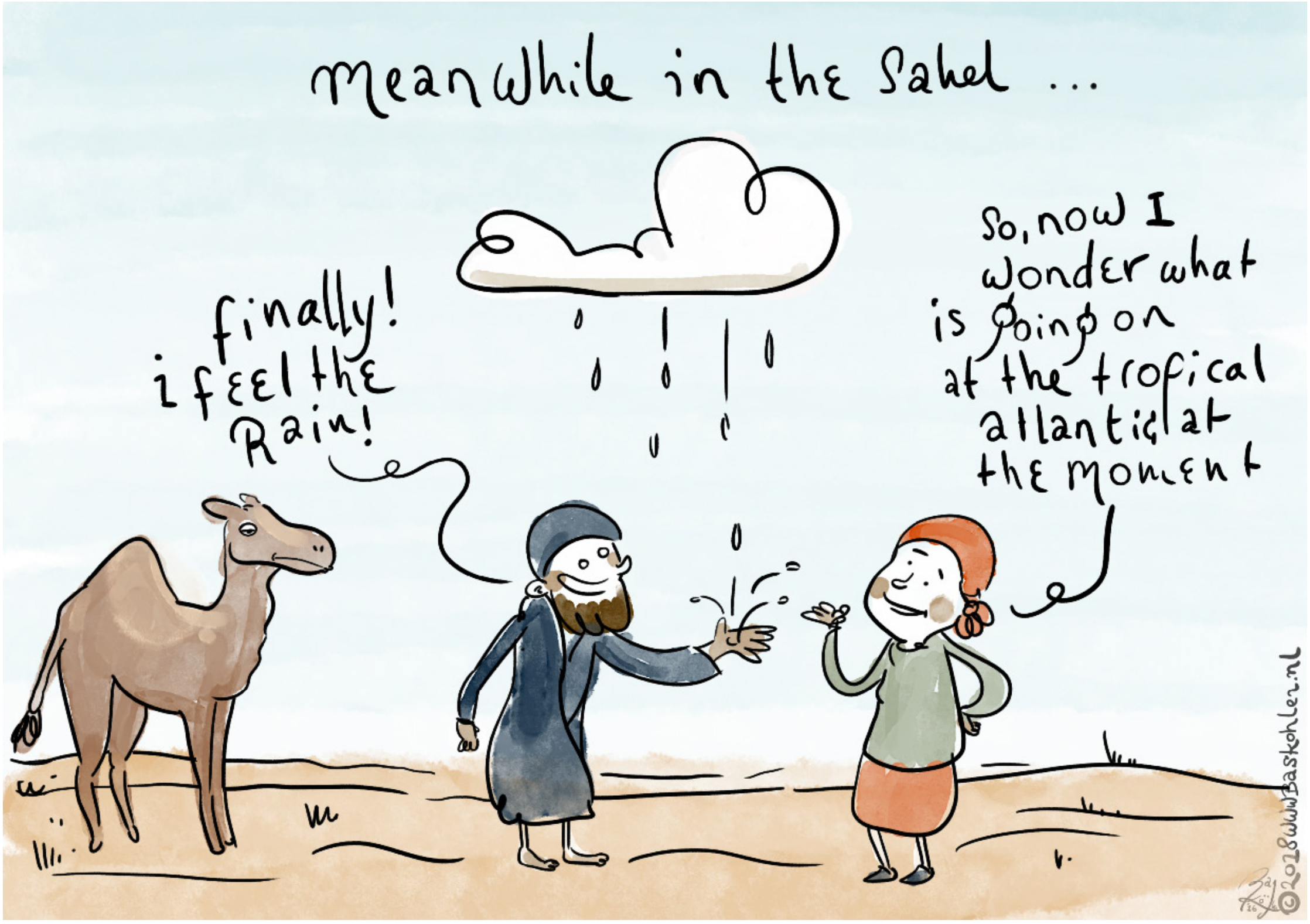

You stupid low level clouds!
Can't you be a bit more simple?!
You're disturbing our model!!!
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How Does radiation get through these low level Clouds within this Box?
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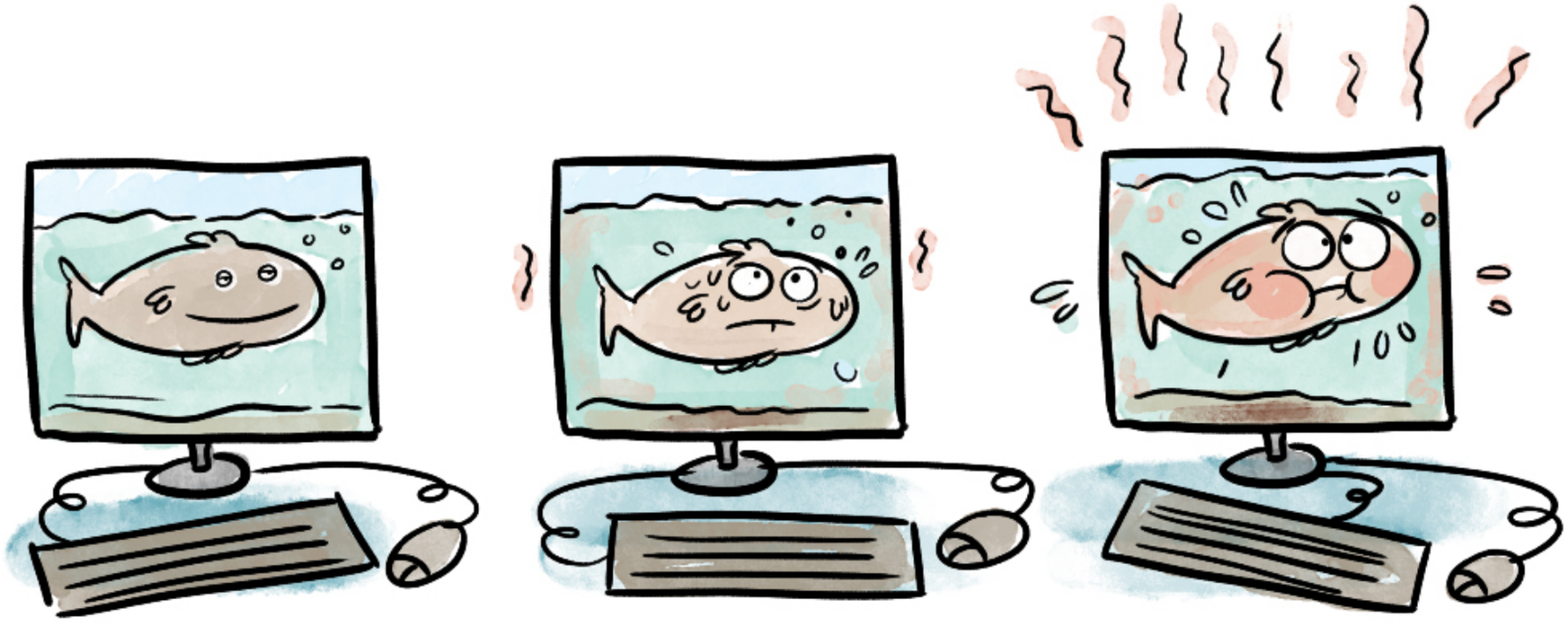
2 approaches leaning on each other:



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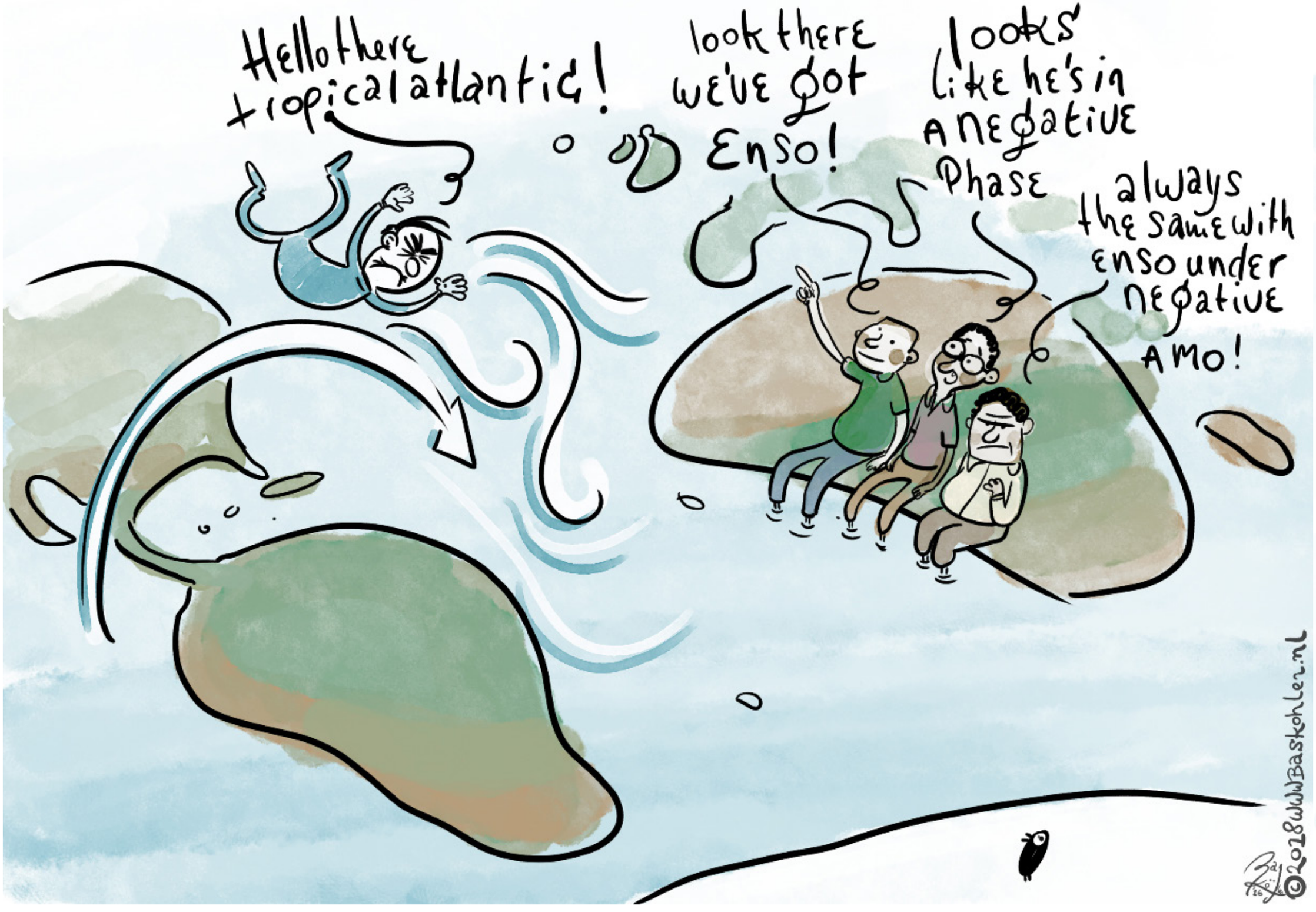

Meanwhile in the Sahel ...
finally! i feel the Rain!
So, now I wonder what is going on at the tropical atlantic at the moment
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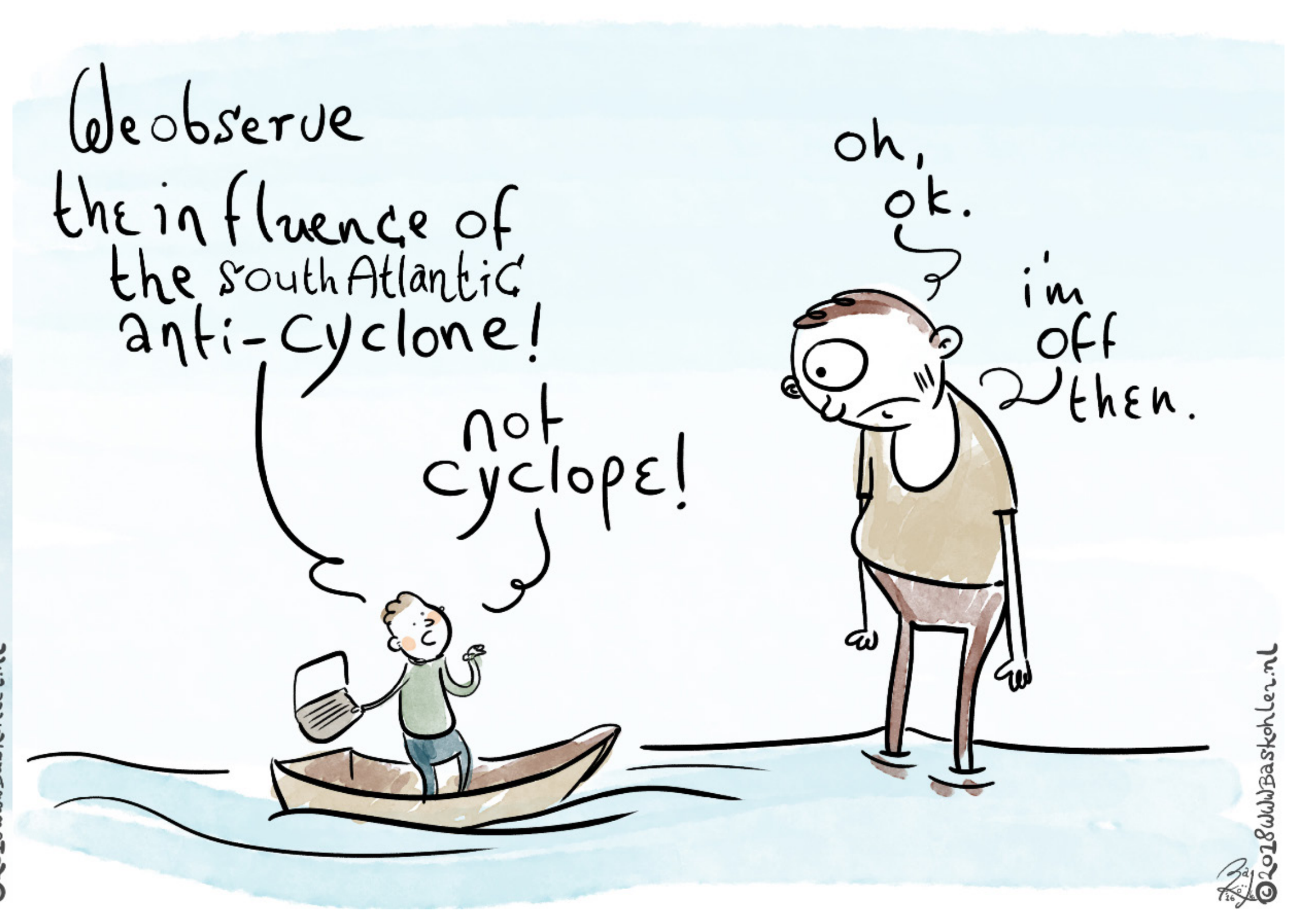
Multi Decadel sst variability:



1942-1964 1965-1987 1988-2010

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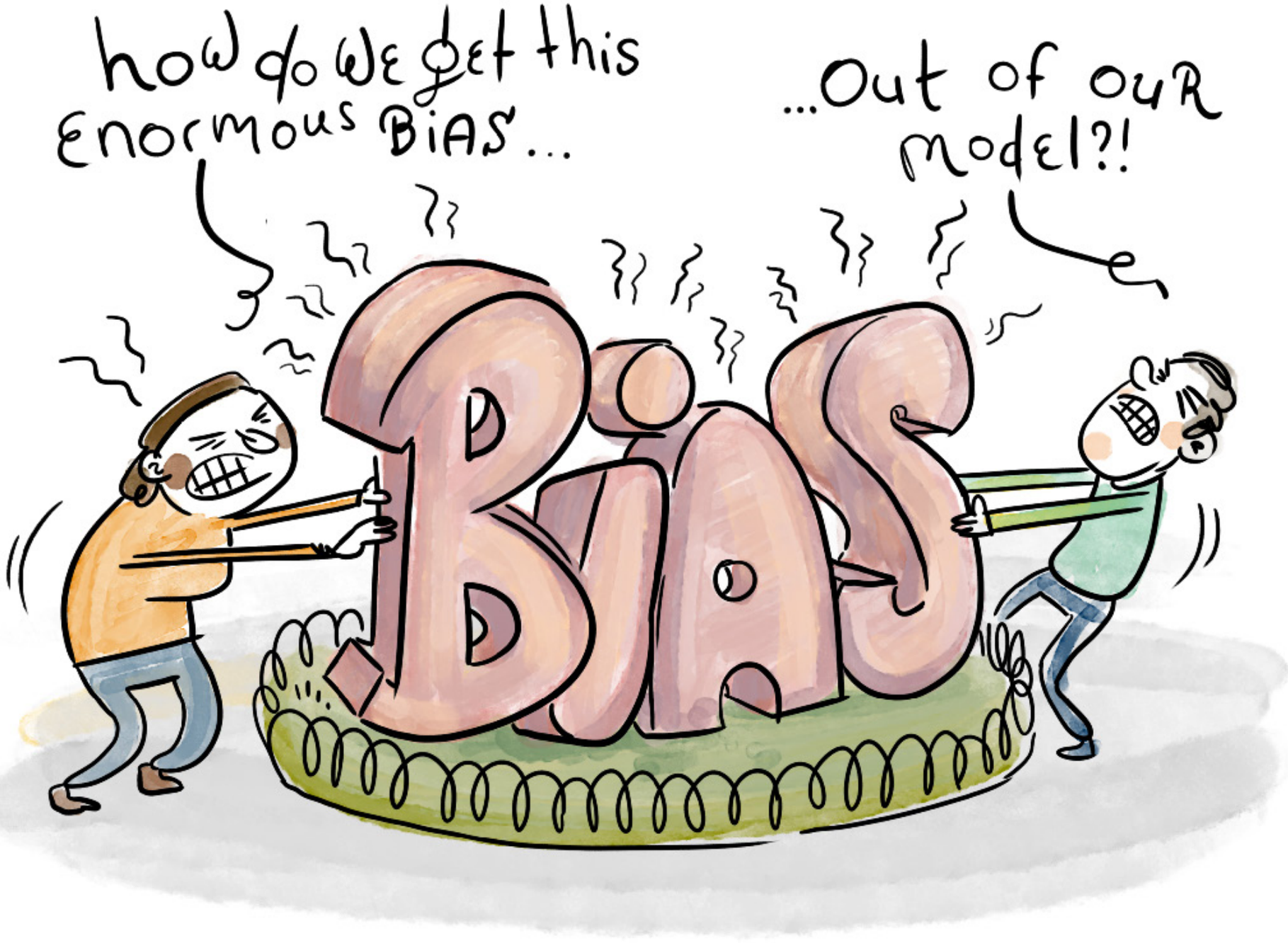

Hello there tropical atlantic!
look there we've got Enso!
looks like he's in a negative Phase
always the same with enso under negative AMO!
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We observe the influence of the South Atlantic anti-cyclone!
not cyclope!
oh, ok.
i'm off then.
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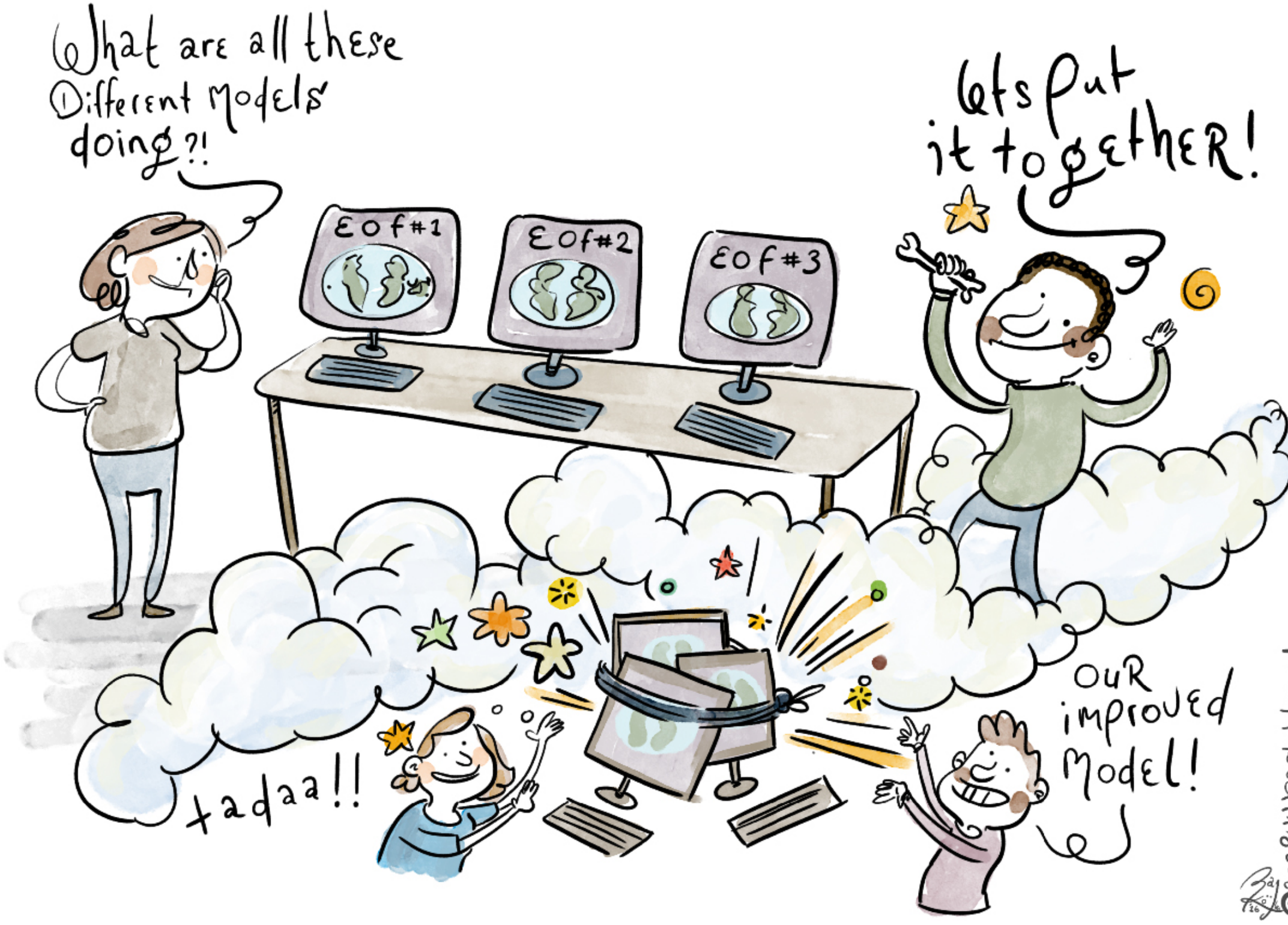

the Walker cell in our tropical Atlantic has been Modified!
that's because of that enso!
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Hi darling! how was your day?!
oh great my love! i Reduced the WARM Bias in the tropical atlantic ocean from july to september in our kcm model!
?
WELCOME
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Yuk! that strong Atlantic Cold tongue Again!
its early this year!
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What are all these Different Models doing?!
EOF#1
EOF#2
EOF#3
lets put it together!
tadaa!!
our improved Model!
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these Coupled models help us With ouR Short-term Predictions!
High & Low ReSolution ReSolution
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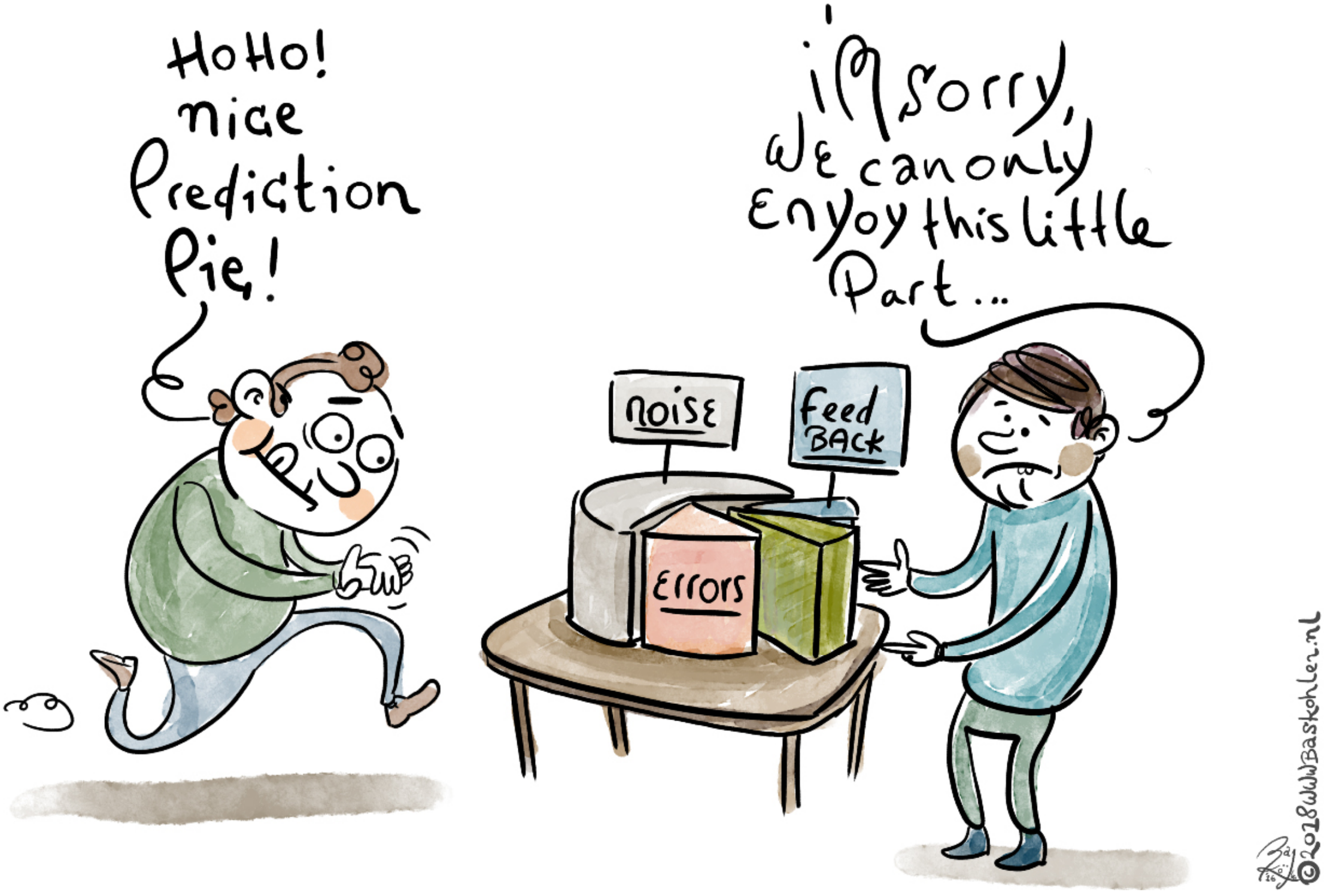

that's what I call quite a strong Westerly Wind Bias in this Model!!
Always the same at the Beginning of April!
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OH no!
it's too Hot!
What does he mean? Actually it's quite Cold HERE!
Well, he's talking about the Bias in his model!
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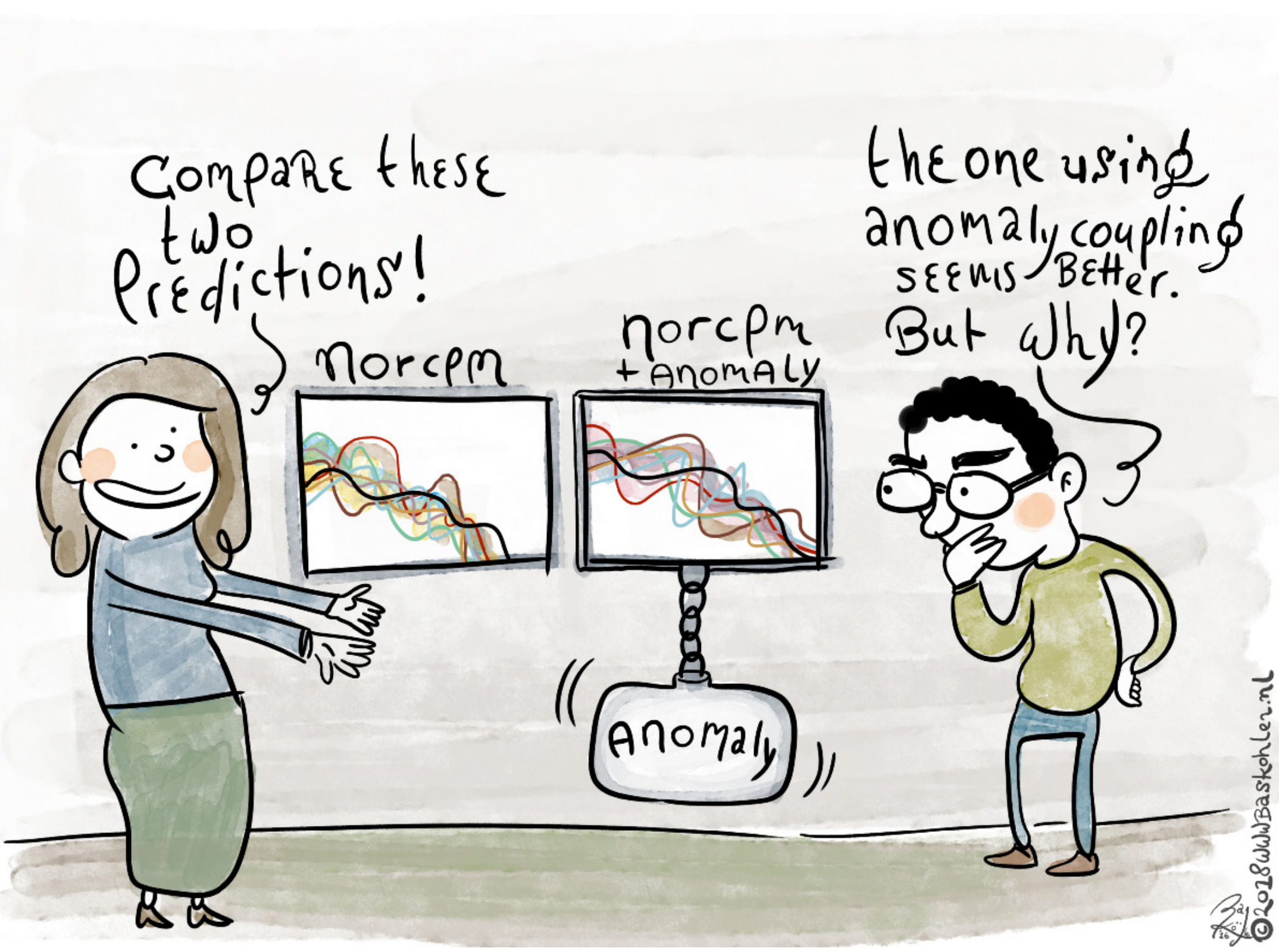

Sensitivity experiment:
So model how DO you react to this?
Hi Hi Hi Hi
oh stop Please stop!
Hi Hi Hi Please!
Hi Hi Hi
I start raining all over!
Hi Hi Hi
stop stop stop!
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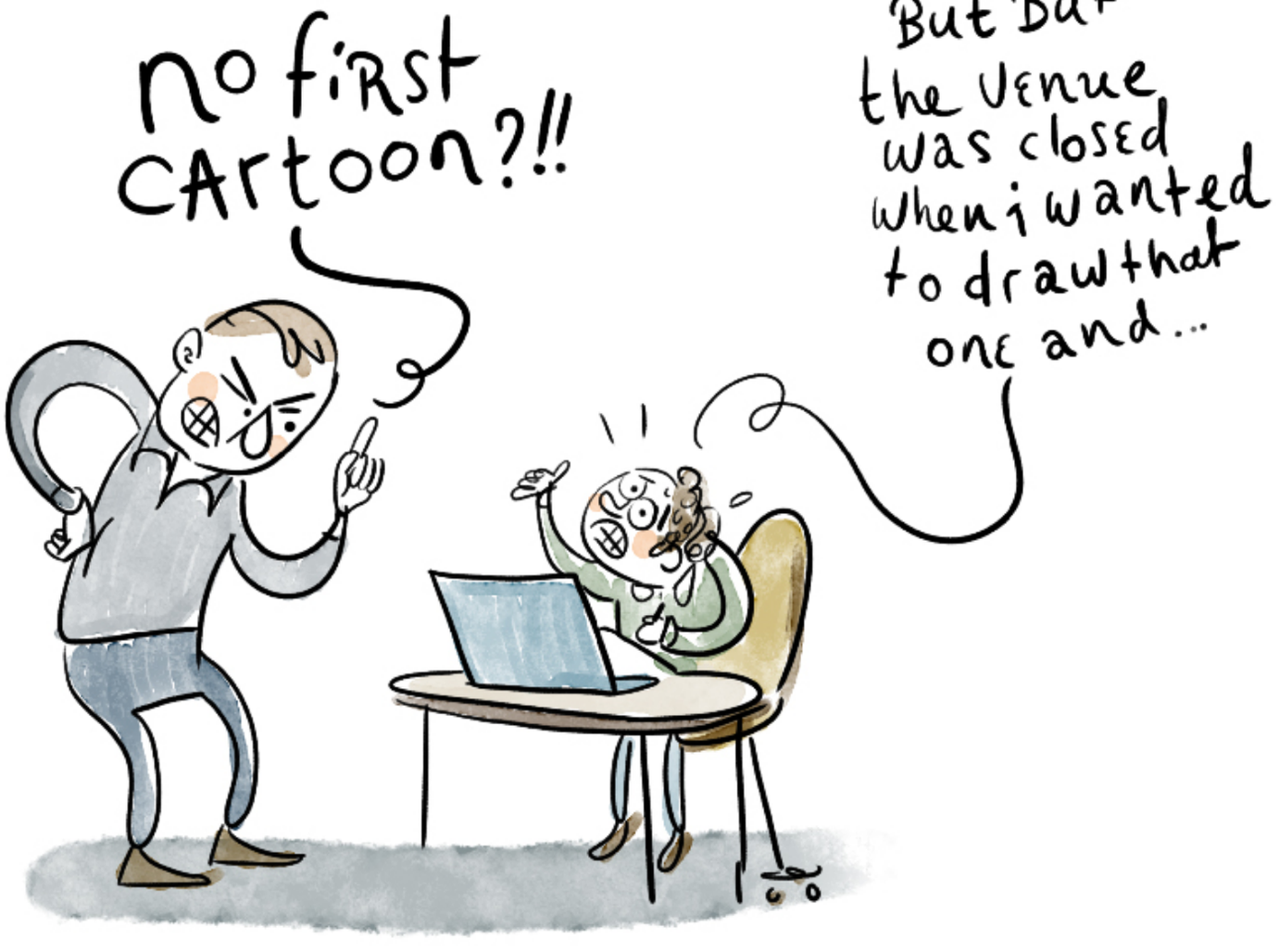
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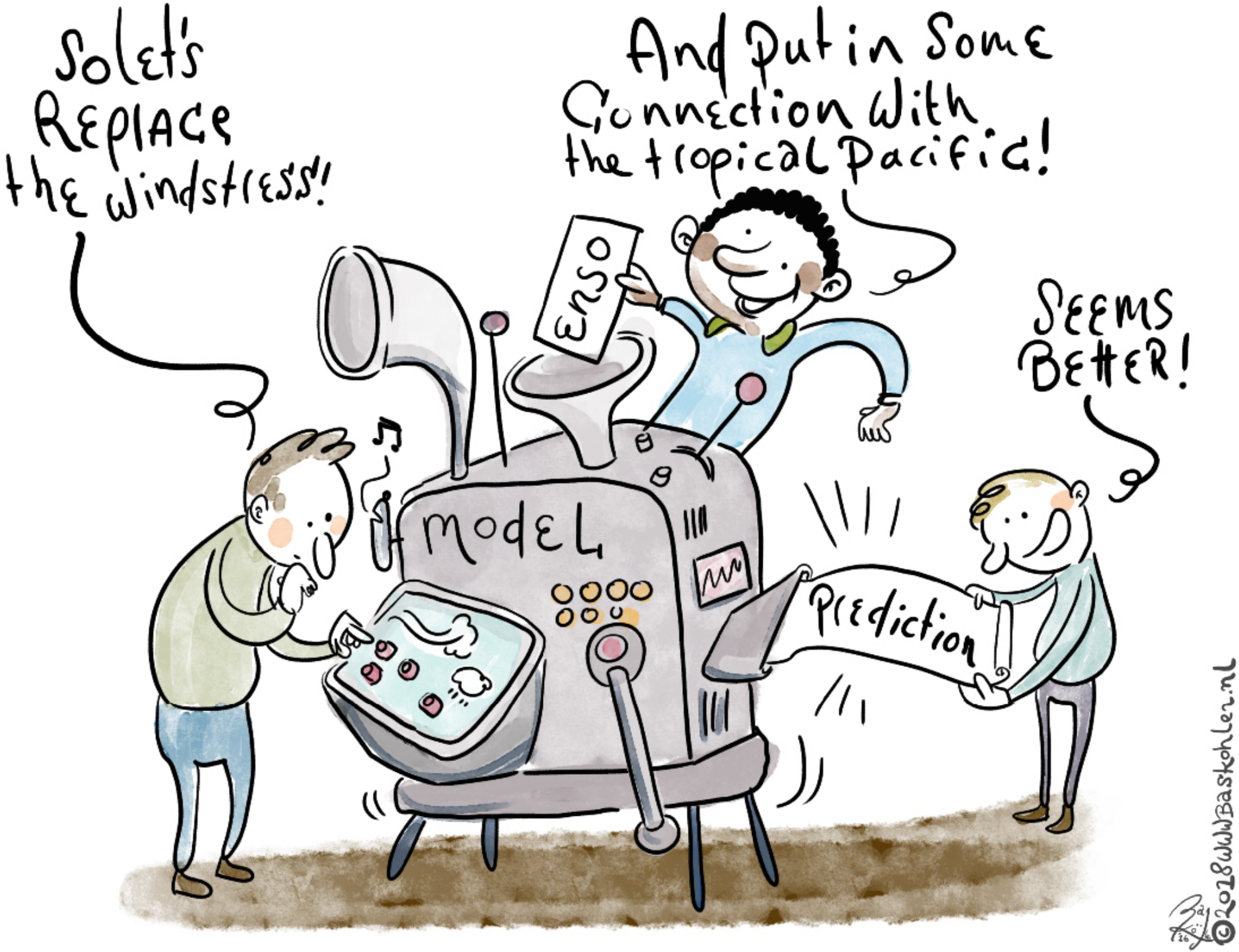

Compare these two predictions!
norcpm
norcpm +anomaly
Anomaly
the one using anomaly coupling seems better.
But why?
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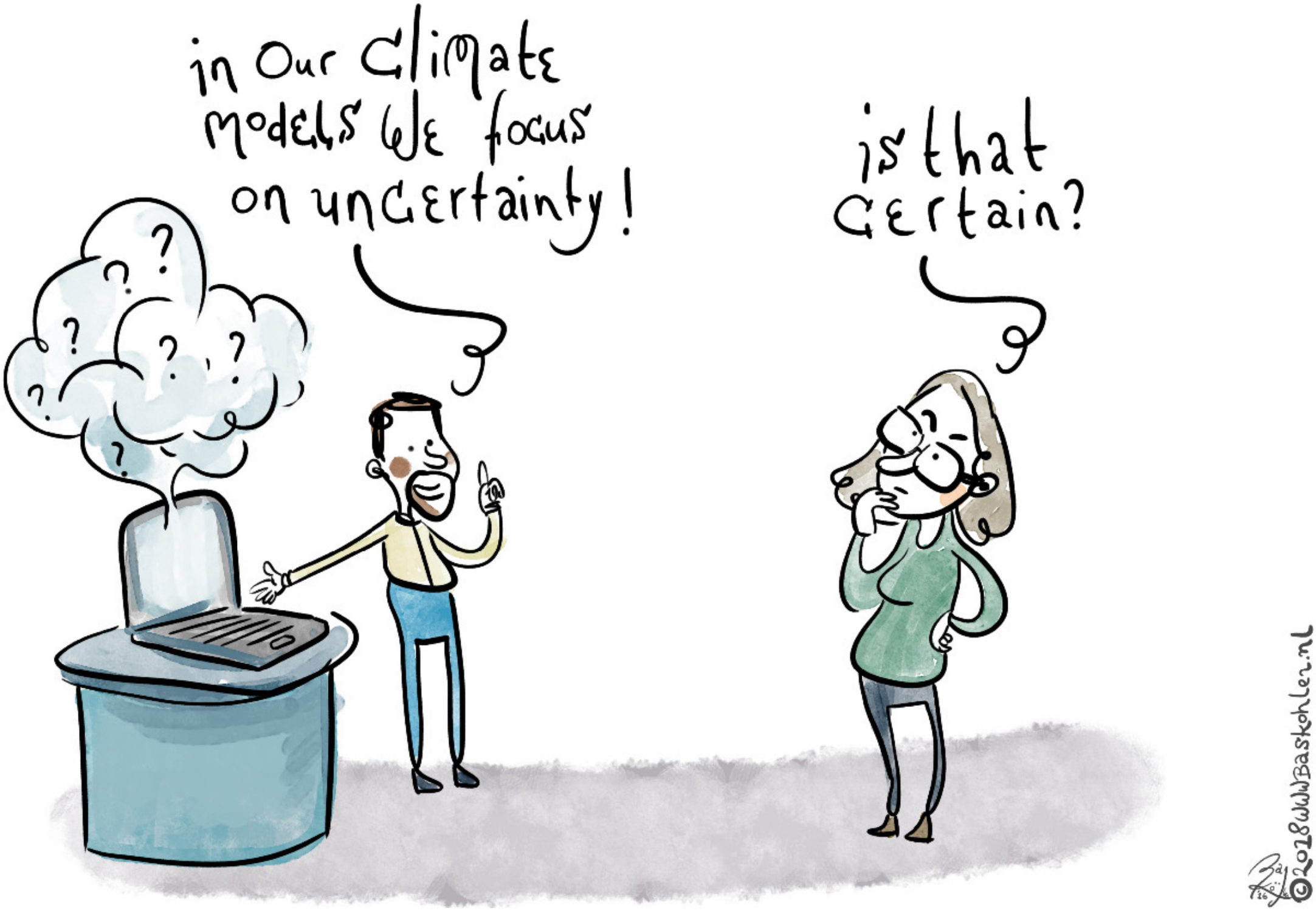
Last Day:



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SST temperature at the See saw
ENSO
High (and vice versa)
low...
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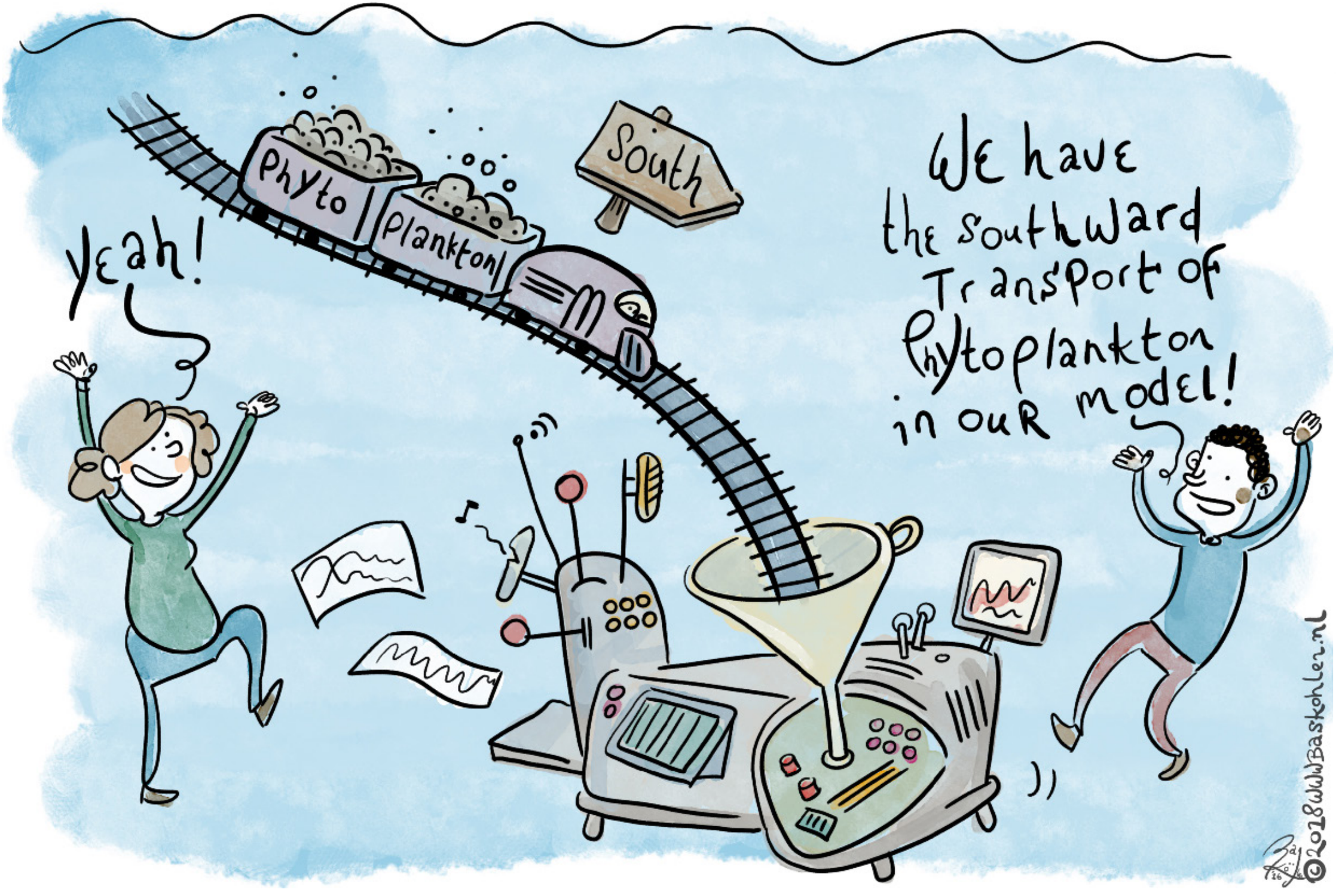

So let's Replace the windstress!
And put in some Connection With the tropical Pacific!
ENSO
Seems Better!
model
Prediction
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What about the predictions of my model?
Well, i have this model to estimate the errors in it!
model
prediction
error estimation
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if it's Difficult to Put the thERMOCLINE into YOUR MODEL...
...just put your Model into the Thermocline!
12°
6°
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Phyto
plankton
South
yeah!
We have the southward Transport of Phytoplankton in our model!
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So how much yellowfin tuna did you catch Today?!
Sorry but WE DECIDED to fish another fish...
oh no! you're spoiling our survey!
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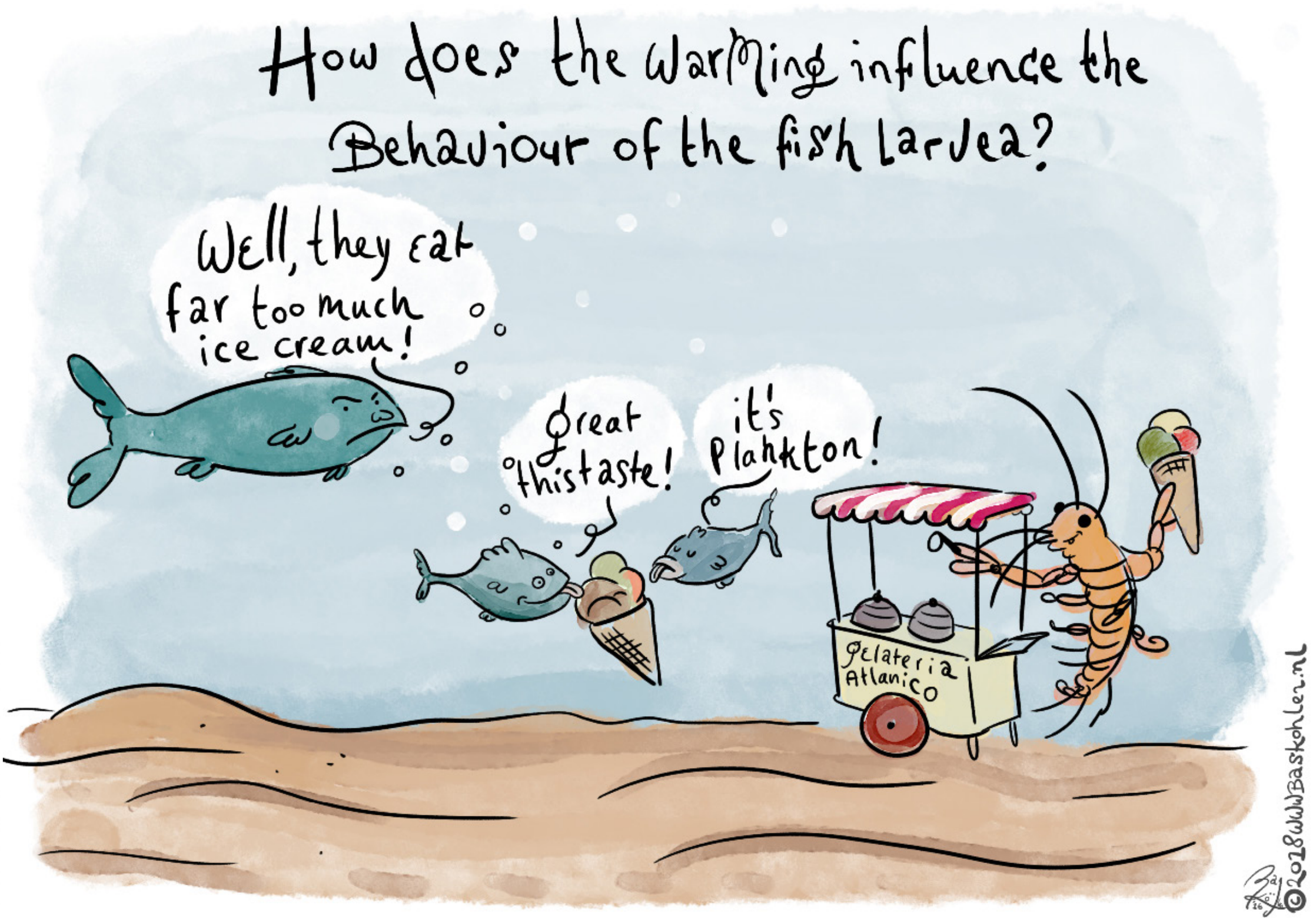


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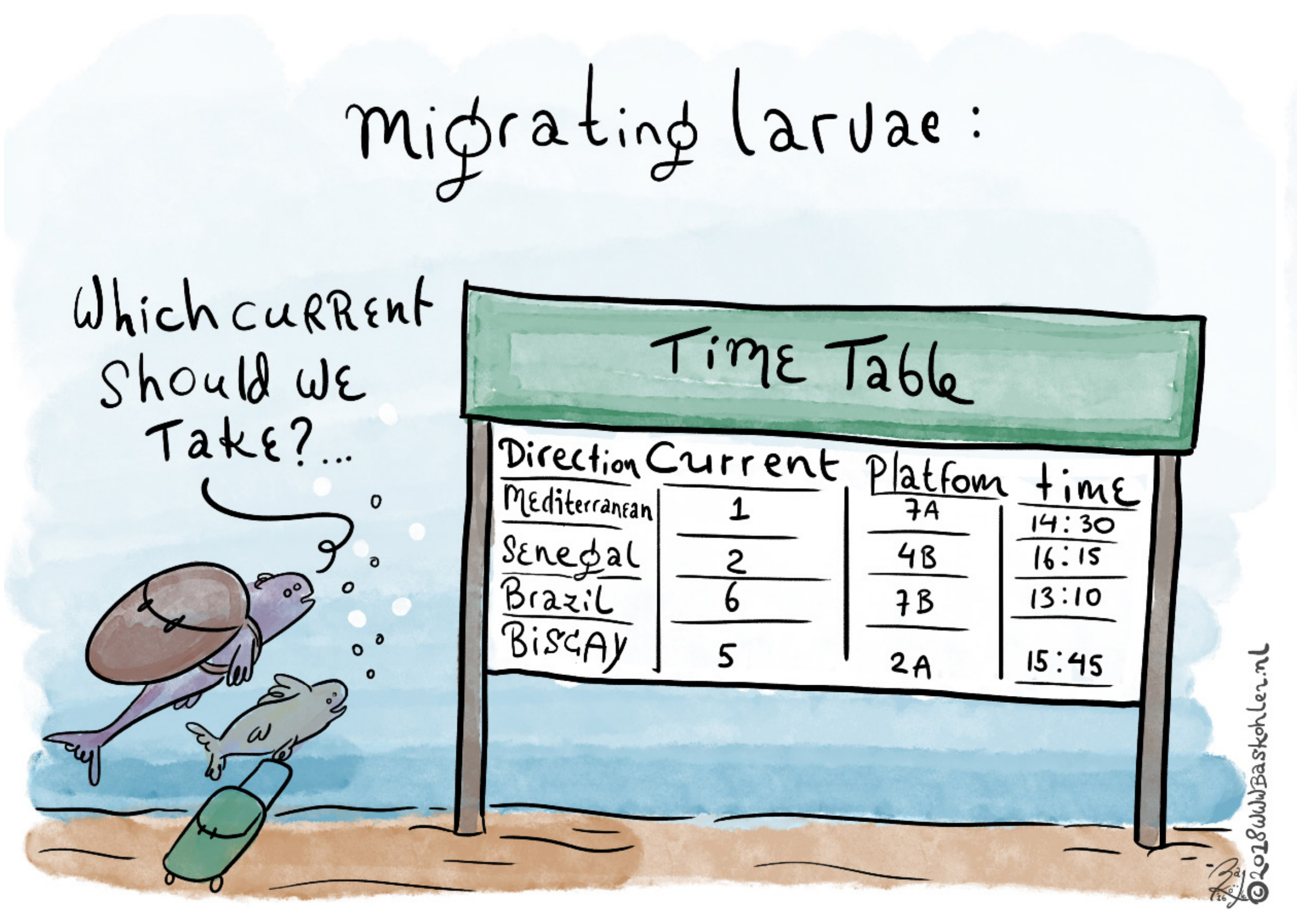
What Do we eat tonight?



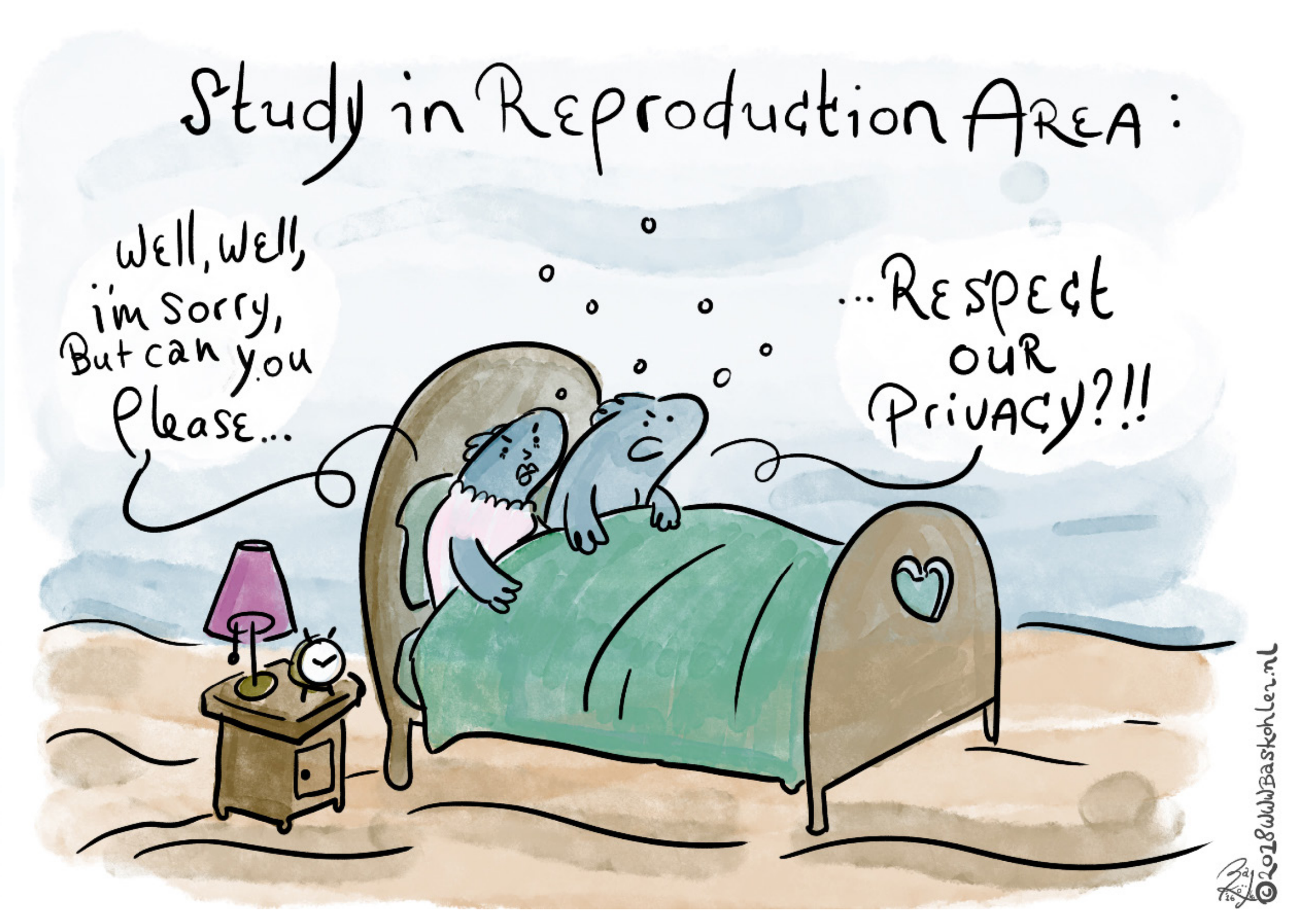
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How does the warming influence the Behaviour of the fish larvea?
Well, they eat far too much ice cream!
Great this taste!
it's Plankton!
Gelateria Atlanico
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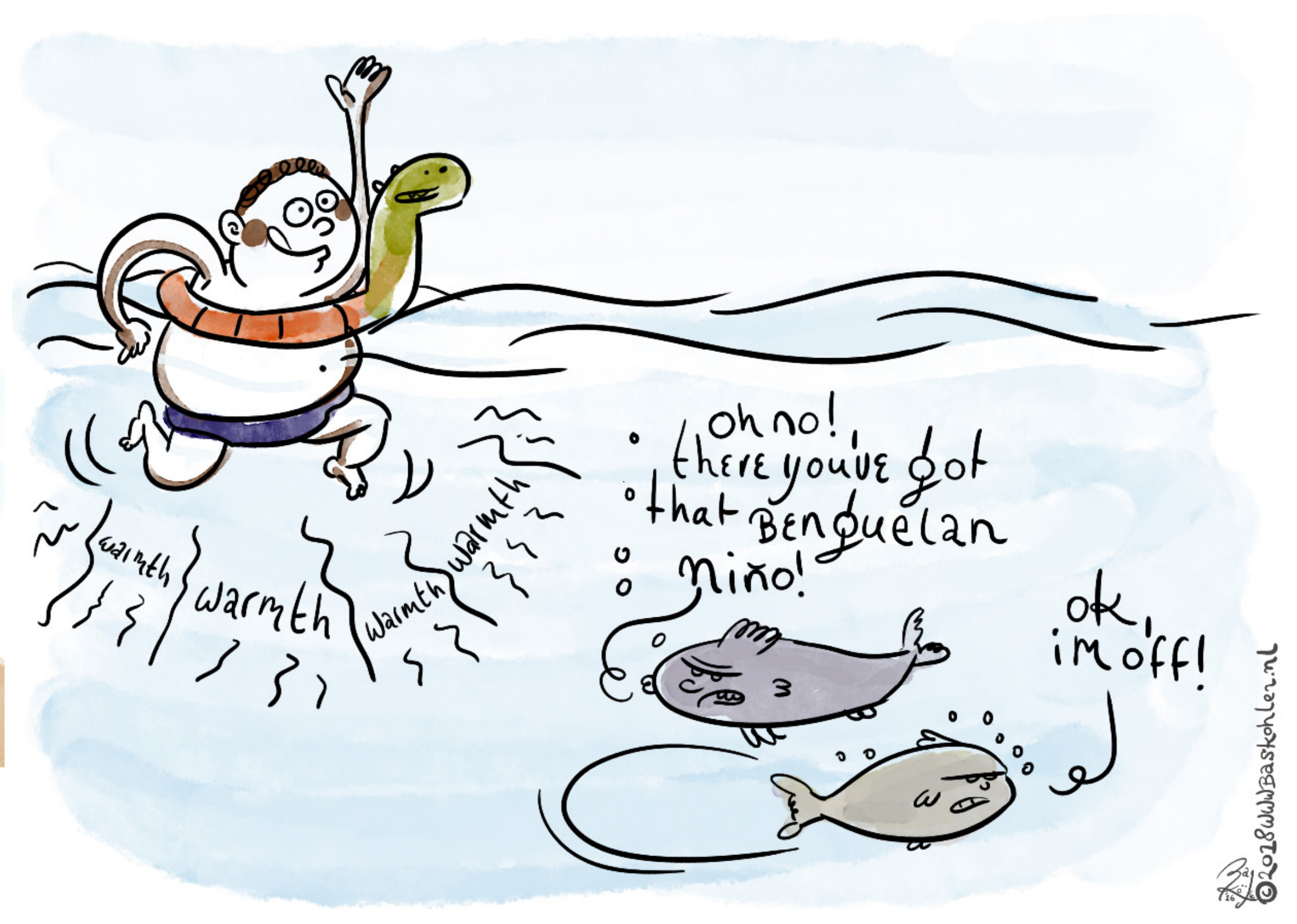
Migrating larvae:



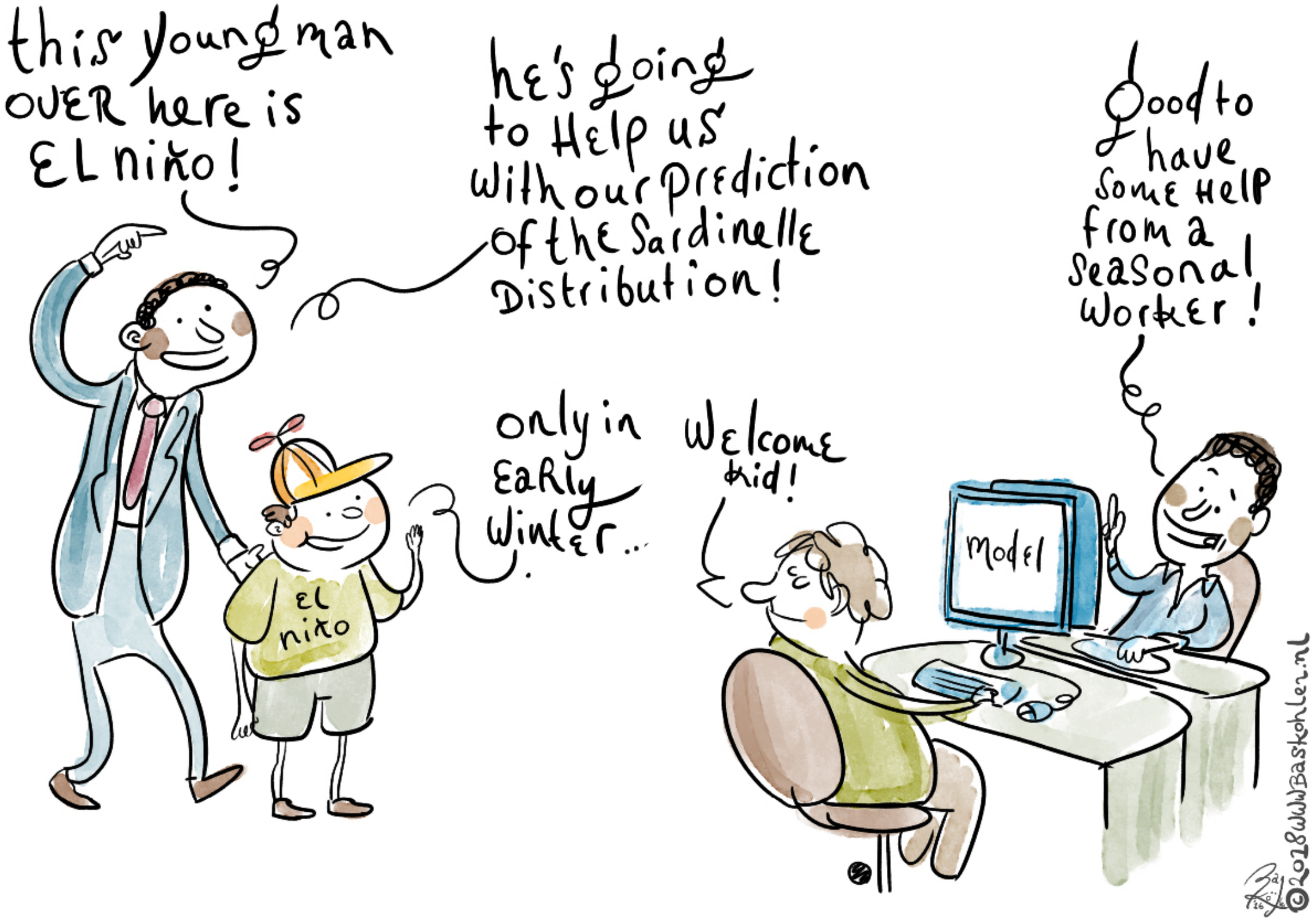
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Study in Reproduction AREA :
Well, well, i'm sorry, But can you Please...
...Respect our Privacy?!!
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...tomorrow again a warm event At the angolan coast...
tA WheaterREpoch
now, thats enough!
Lets southt!
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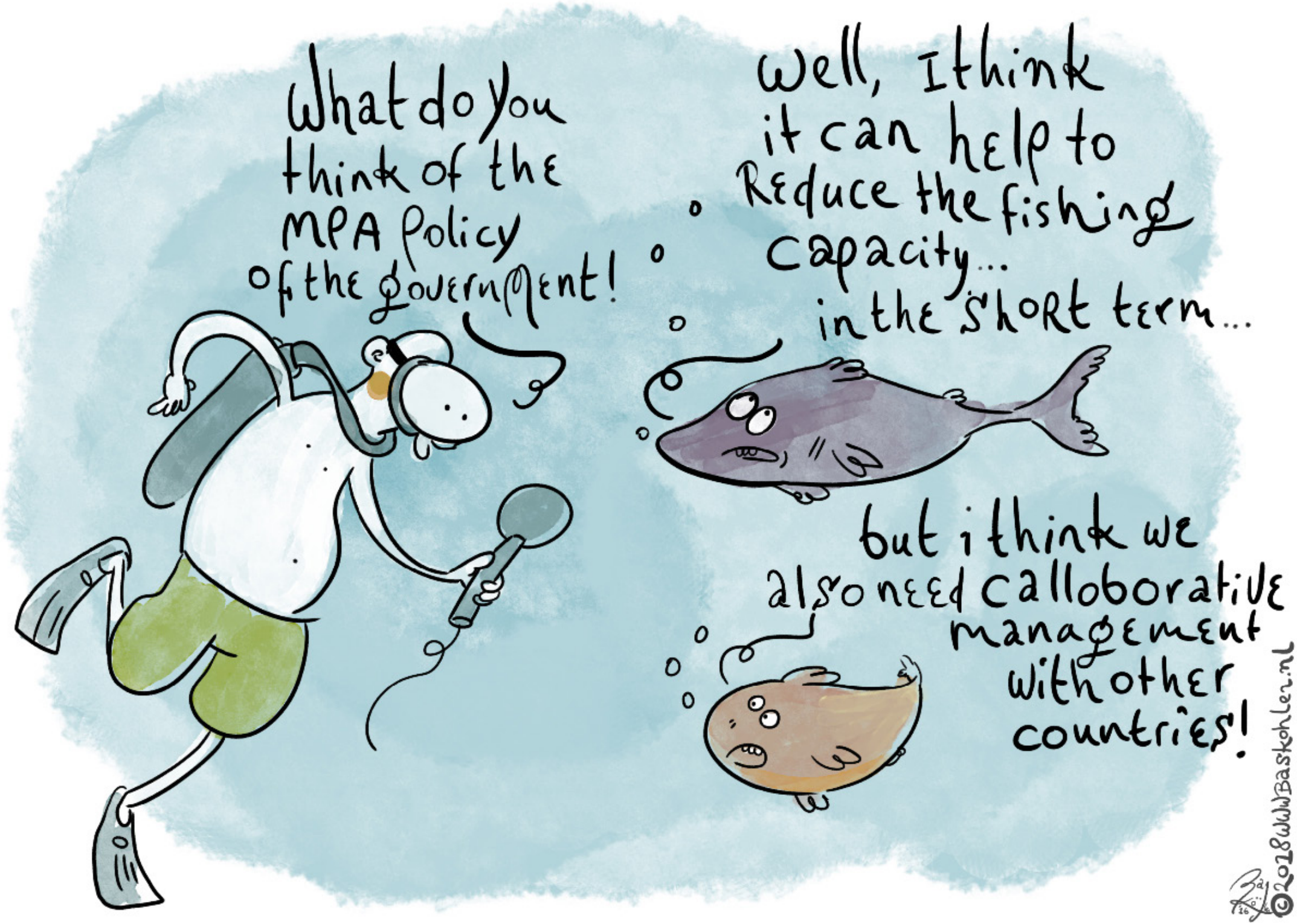


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Annoyed small pelagic fisch:
Yeah, Right!
a traffic jam
again!....
Boujdour
DAKHLA
under these
intense warming
circumstances
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Why do you target these species?
Well for me it's the most profitable!
let's make money!
Well... for me it's the most likely i catch this one...
let's survive!
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Hey! Over the last 7 years the price of Sardinelle only rose and Rose!
im Sorry madam, But the Reason is ther are less and less to catch!
Price
up
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What do you think of the MPA policy of the government!
well, I think it can help to Reduce the fishing capacity... in the short term...
but i think we also need calloborative management with other countries!
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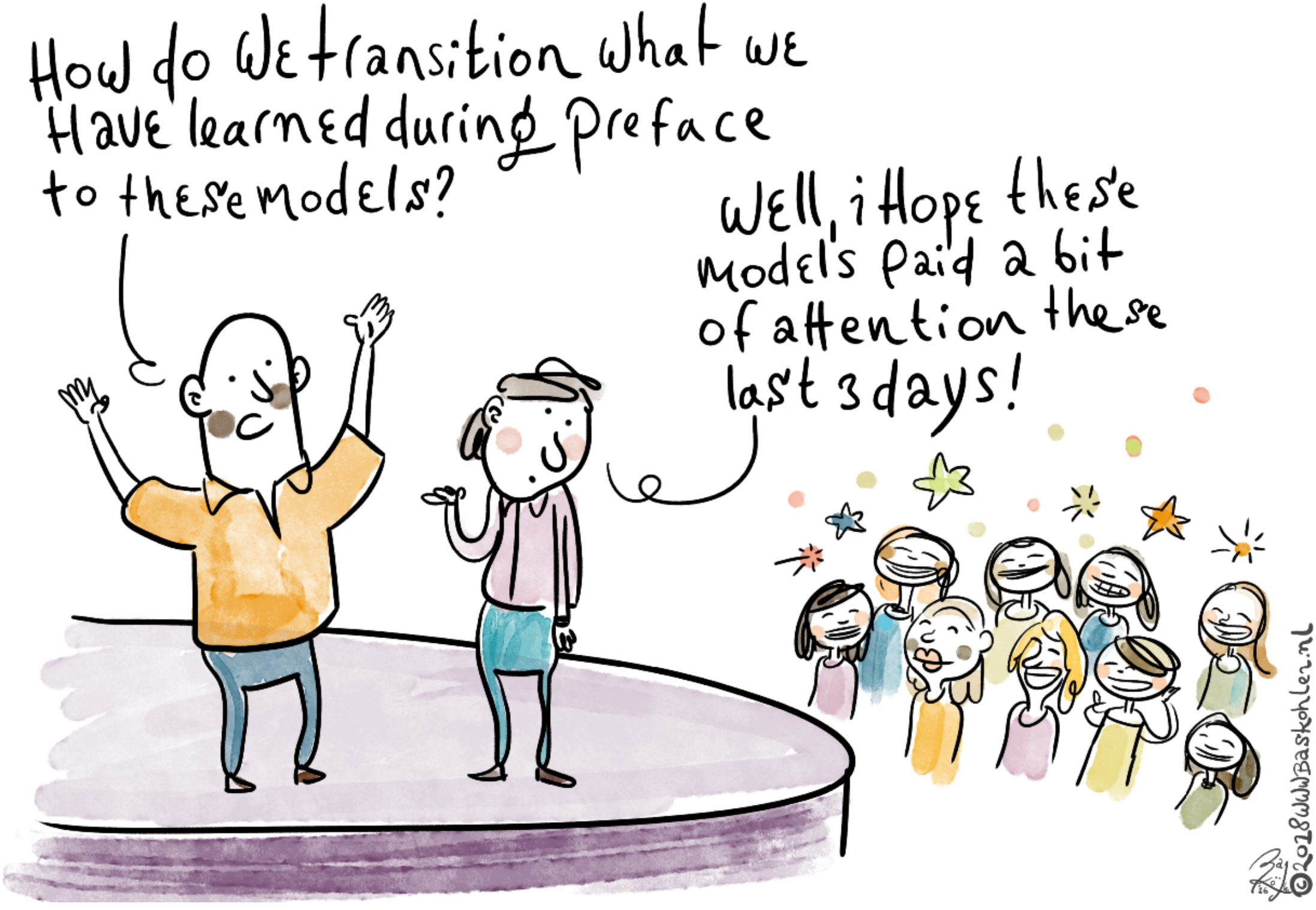

What?! the price did not drop?!
But they caught so much lately!
WE'RE in Dakamadam it's so big here the local fishery has no influence on the price!
You'll benefit from that another time.
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DECREASING fish landing...



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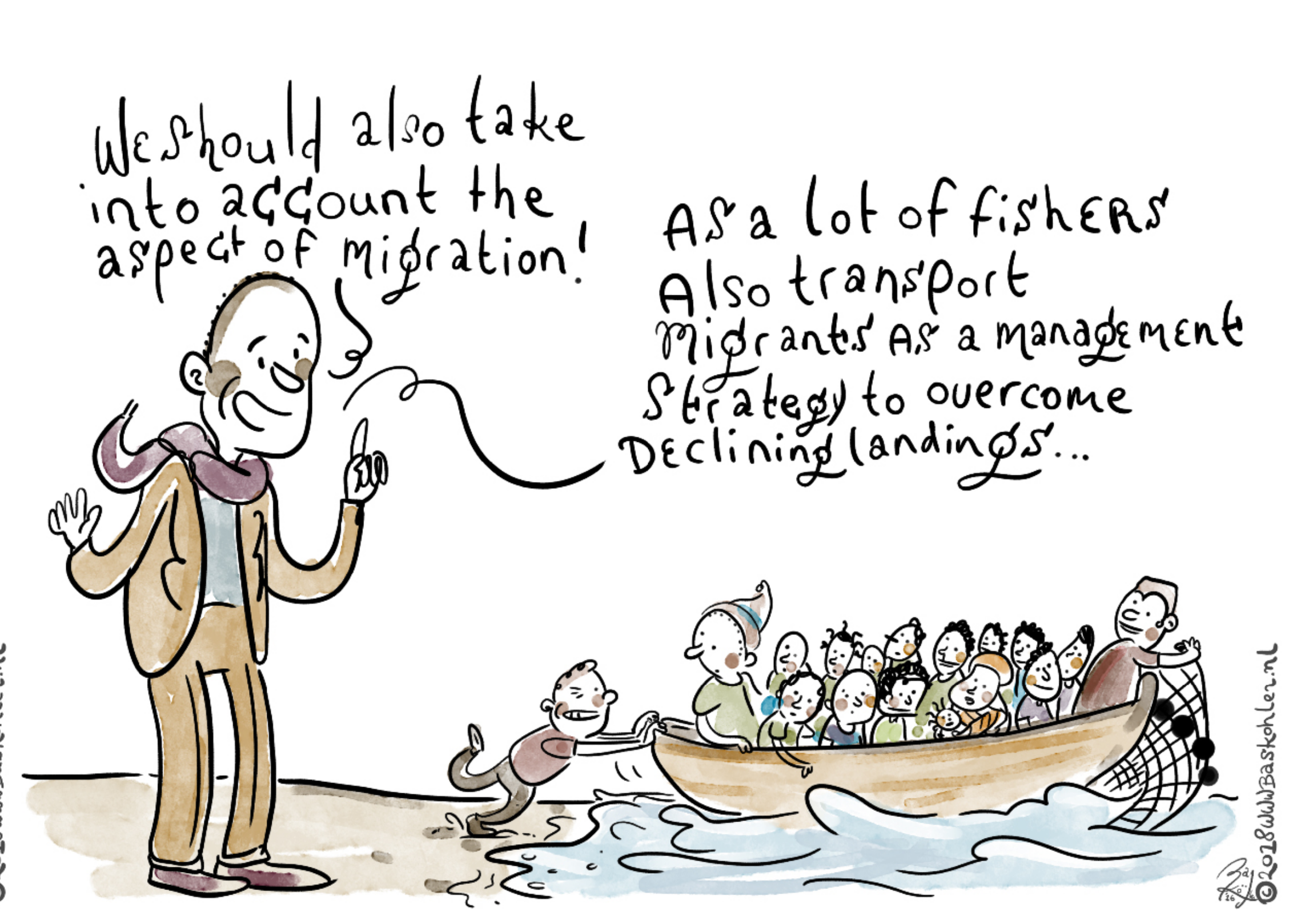

Meanwhile at the Nigerian shore
but what should we eat now?
oil barrel?
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How do We transition what we Have learned during preface to these models?
Well, i Hope these model's paid a bit of attention these last 3 days!
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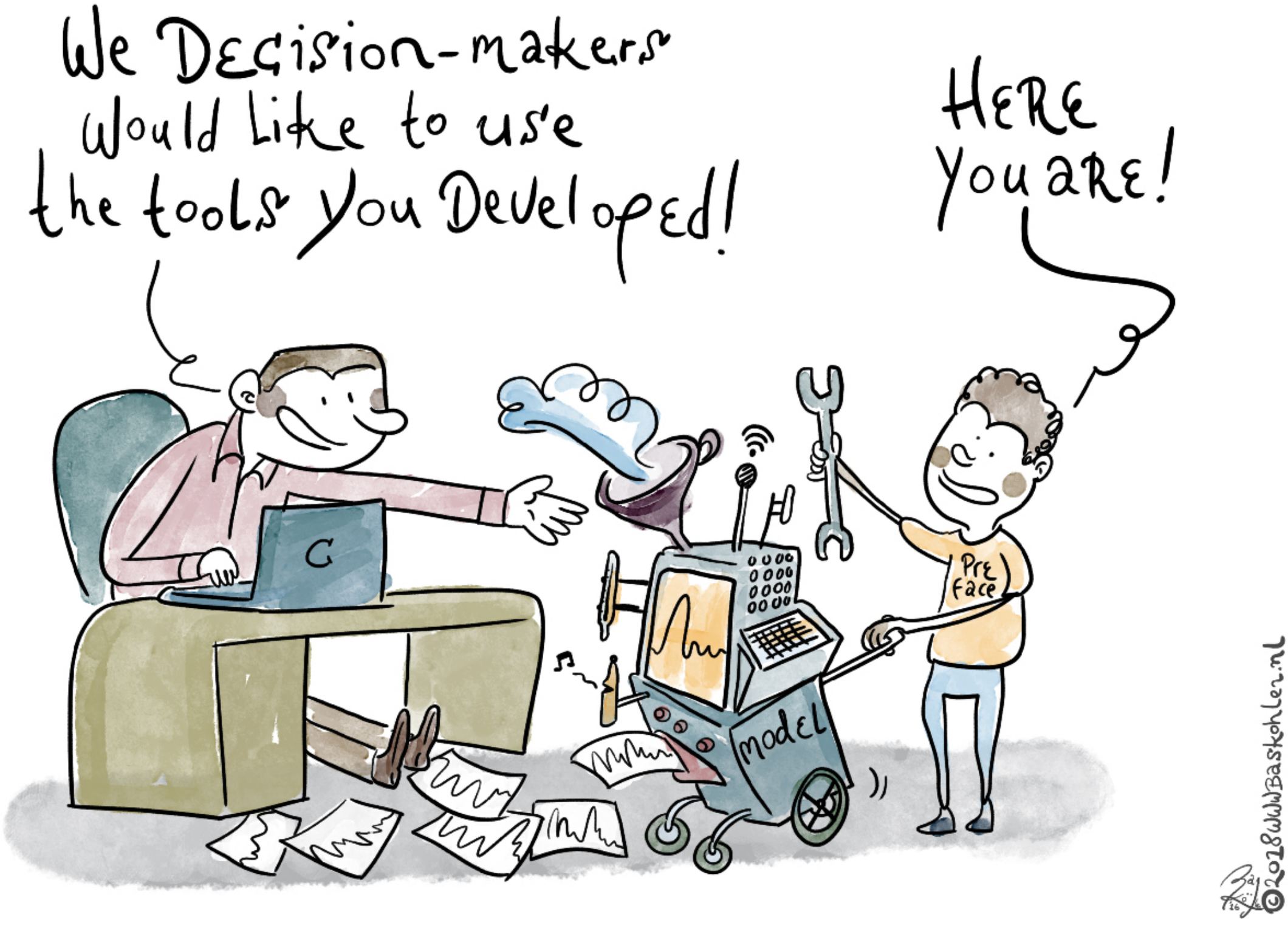


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Policy Meeting...
We need also data on the Value chain Behind fishery!
Net making
fish agree ment
Boat making
Distri- Bu- tion
industry
trans- Port
fish market
RE staurants
Households
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We Decision-makers
Would like to use
the tools you Developed!
HERE
You are!
C
model
Pre
Face
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Don't Be childish
and Share your Data!
But they're mine mine mine
mamaa! i don't want to share no Data!!
waaa!
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