



PrimeFish

EFFECTS OF NEGATIVE PRESS ON CONSUMPTION OF FISH

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Horizon 2020
Programme

**Aligning the PrimeFish contributions to the Blue Growth
Strategy, Brussels, 25th of October 2018**

Fish in the news... is not always good news!



Mercury rising—**are the fish we eat toxic?**

3 May 2018, by Martin Lasalle



Credit: Stuart Rankin

The amount of mercury extracted from the sea by industrial fishing has grown steadily since the 1950s, potentially increasing mercury exposure among the populations of several coastal and island nations to levels that are unsafe for foetal development.

cent (66 of 175) of the countries examined by the study might be exposed to methylmercury levels higher than the maximum deemed safe for foetal development. The highest-risk countries include the Maldives, Iceland, Malaysia, Lithuania, Japan, Barbados and South Korea.

When humans ingest excessively high levels of methylmercury, the toxin's molecules can penetrate the blood-brain barrier and impact cerebral development, especially in children and fetuses.

Demand for seafood has skyrocketed

Industrialization has released vast quantities of mercury into the atmosphere, which have settled in oceans and waterways. This mercury is absorbed by sea creatures, many of which are consumed by humans.

Since 1950, demand for seafood has skyrocketed while technological breakthroughs have enabled more intensive forms of industrial fishing. Since the 1990s, when overfishing drastically reduced stocks, industrial fishing has gradually migrated to deep-sea and international waters.



discarded in the North Atlantic and the North Sea each year; 40-ope is discarded – either because they are the wrong size, I-governed European quota system. **Tristram Stuart** 2009, ial Food Scandal



Little MIA in Germany - fully taught in fish
Kfurt School

**e eating lots of
ay like it.**

about what the fish itself ate – but
some plastic trash at sea. This is
h for sustenance.

New food fraud scandal as cheap & more expensive varieties in stores

WATCHDOGS have called for a major programme of DNA tests to stop the wide:

By Norman Smeester
05/01/17 MAR 2013 UPDATED 16/13 22 MAR 2013



Small cheap fish 1758807Picoc-overlay





Consumers reaction to negative press

“Can negative information about fish consumption influence the consumers’ intention to eat fish?”



European consumers in:

□ **UK**



□ **France**



□ **Germany**



□ **Italy**



□ **Spain**



□ **SALMON**



Altogether 3.766 people
- about 800 per country

Experimental design

1 Attitude
(pre-manipulation)



2 Involvement
Environmental &
Health concern

Strongly
agree



Strongly
disagree

3 Manipulation



4 Credibility

Strongly
agree



Strongly
disagree

5 Attitude
(post-manipulation)



6 Behavioral
intentions

After reading
this article
I will...



Example of information sent to consumers

Salmon consumption: exposure to mercury and antibiotics



Salmon consumption: exposure to mercury and antibiotics.

Using numerous samples of wild fish from different sources, researchers from an American university discovered that salmon contains significant quantities of mercury. At high doses, mercury is toxic to the human central nervous system, particularly during prenatal development and early childhood. Wild fish consumption is the main source of exposure to mercury for humans.

Unfortunately, farmed salmon cannot be considered safer than wild salmon because of the use of antibiotics during the farming process. Farmed salmon frequently suffer from bacterial diseases causing lesions and possibly death. Unable to develop effective vaccines, farmers fight these infectious bacterial diseases by consistently increasing the use of antibiotics. These methods of treatment have a negative impact on consumer health as well.

Article recently appeared on the website of National Health Service

The sources were:

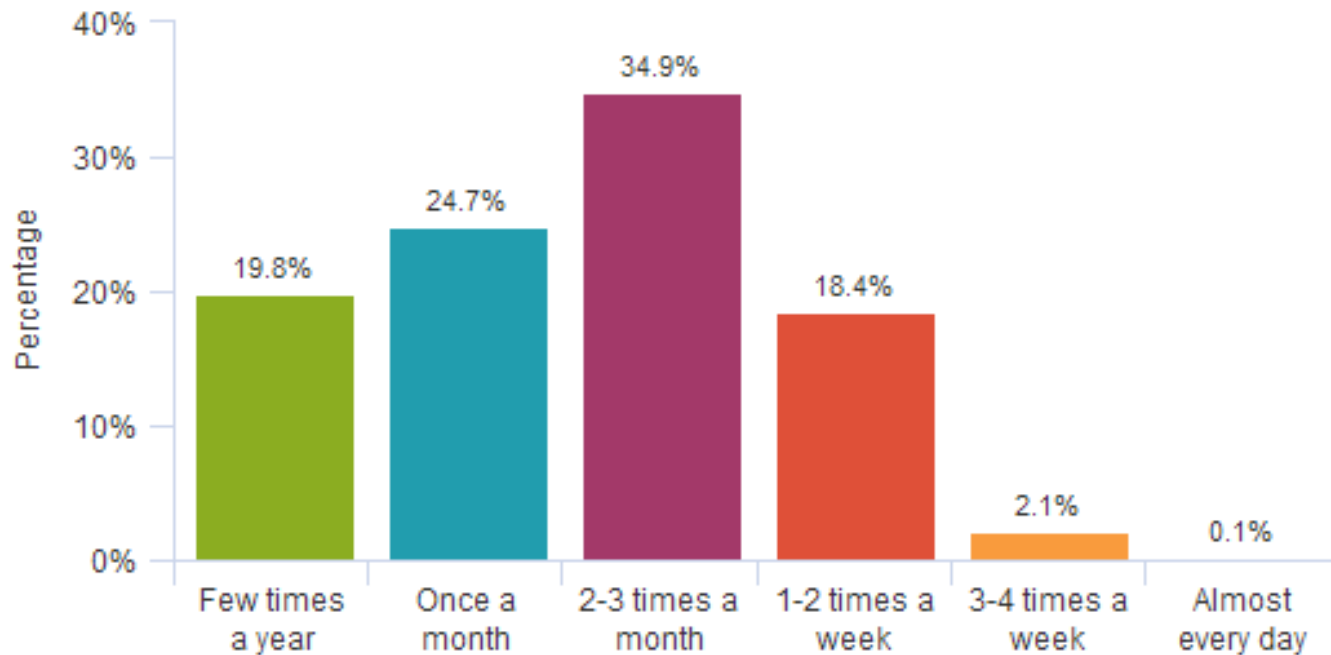
- Official governmental information
- Unofficial info (Informal blog)

Salmon consumption frequency

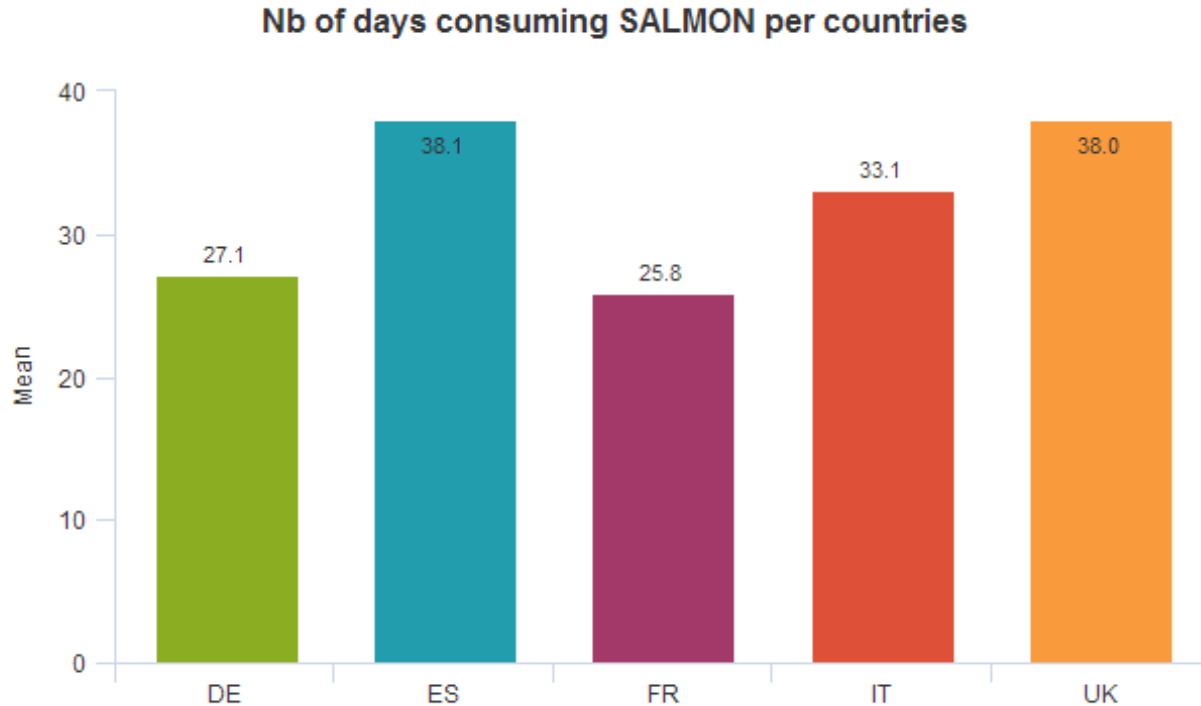
Please indicate how often you consume salmon in any form (fresh, frozen, smoked, canned, ready to eat, etc...) at home, at restaurants and other food outlets (canteens, bars, etc.).

Effective responses: 3,766

Mean: 32.3

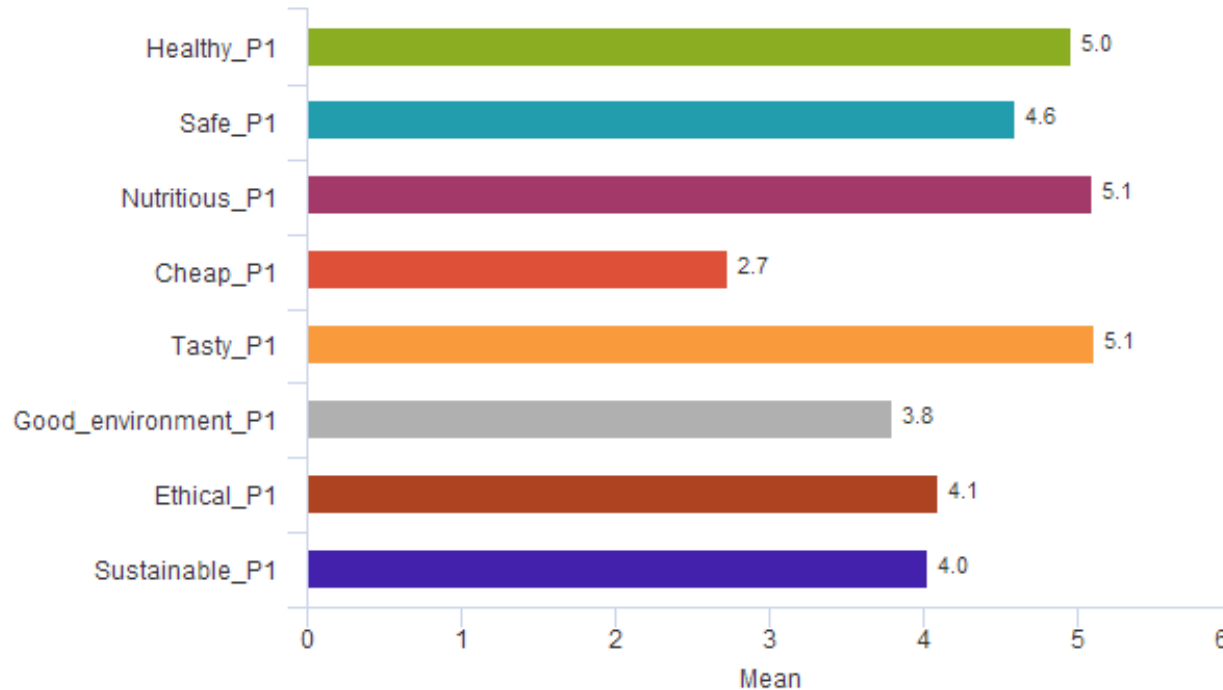


Salmon consumption frequency cont'd



Attitudes towards salmon

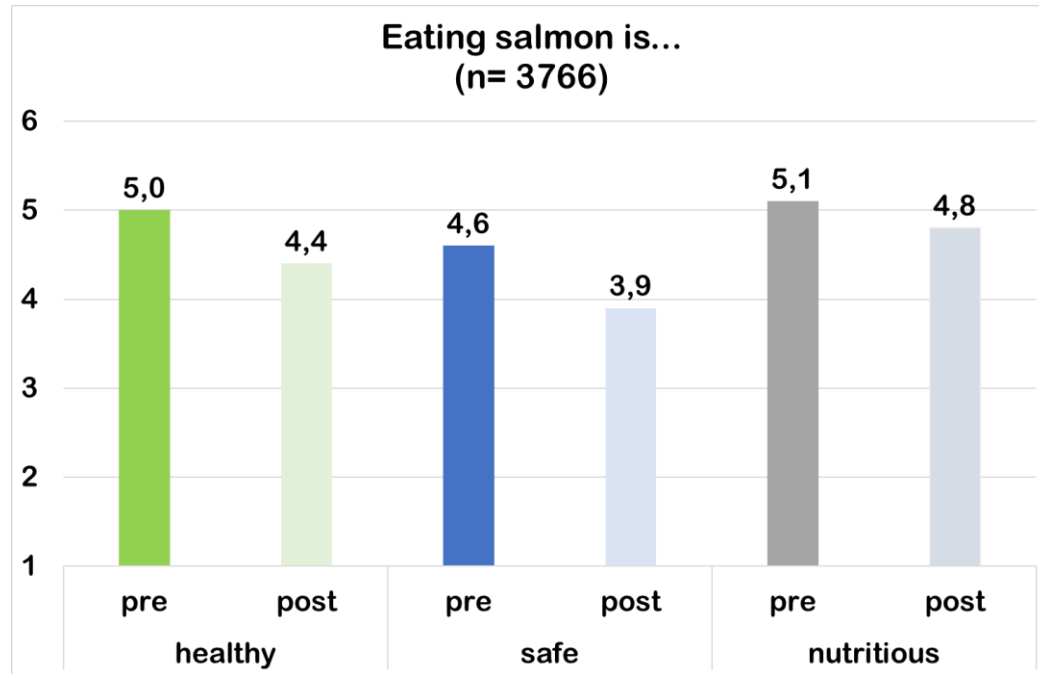
Attitudes towards salmon consumption (pre-stimulus)



Impact on attitude towards salmon - I

Consumers perceive eating salmon after information intervention as

- **Less healthy**
- **Less safe**
- **Less nutritious**



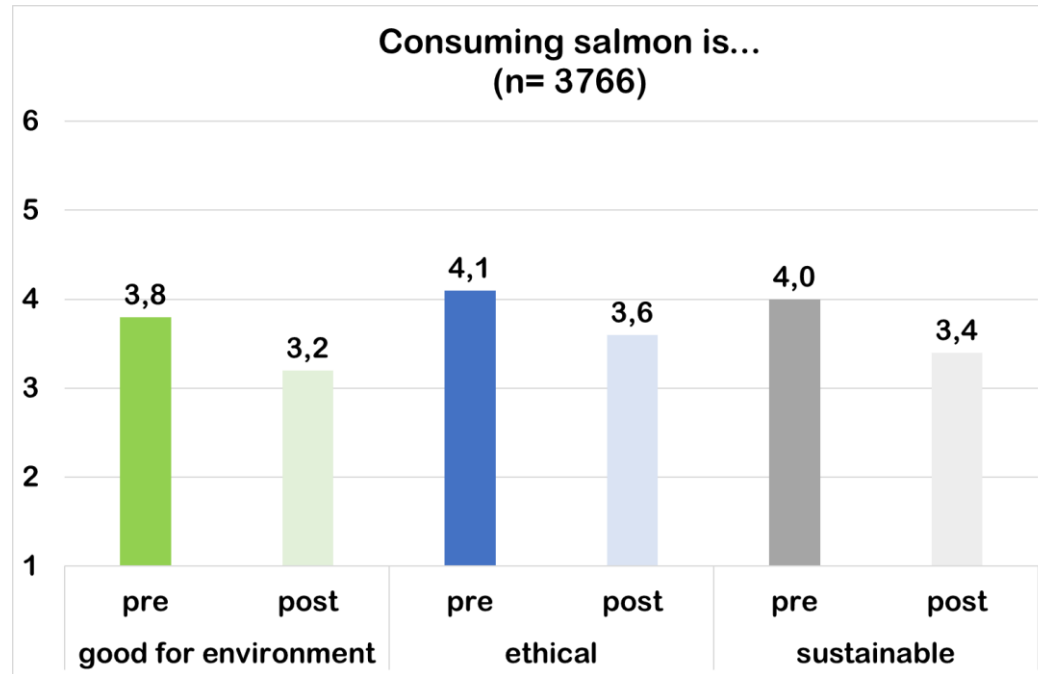
Pre= before information intervention

Post= after information intervention

Impact on attitude towards salmon - II

Consumers perceive eating salmon after information intervention as

- **Less good for environment**
- **Less ethical**
- **Less sustainable**

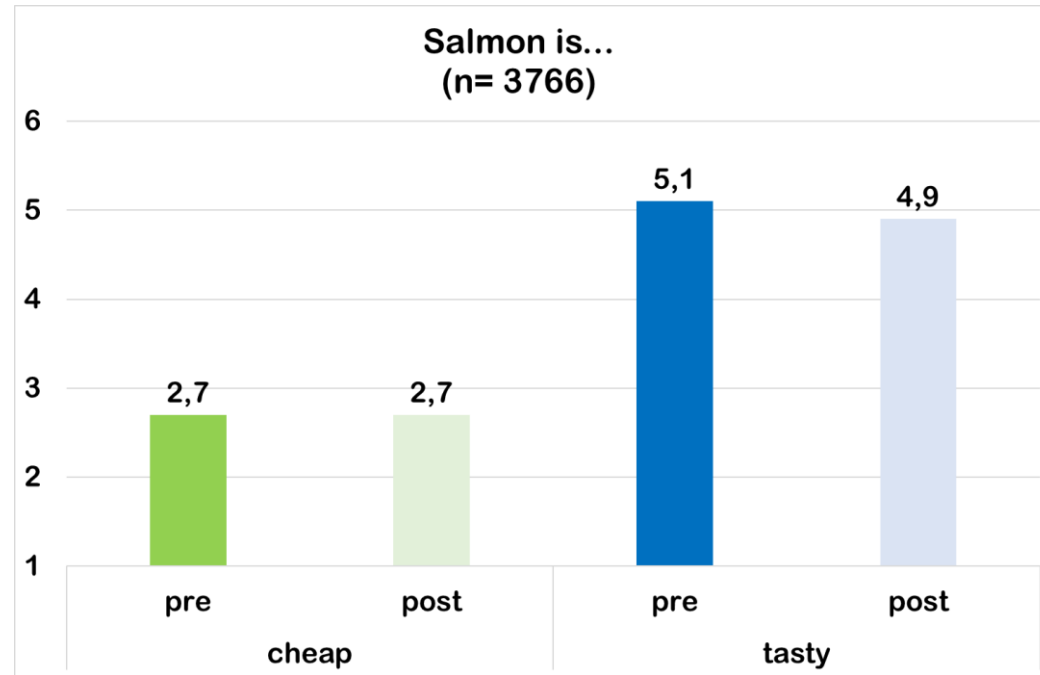


Pre= before information intervention

Post= after information intervention

Impact on attitude towards salmon - III

Negative information has no/hardly no impact on the perception of salmon as a cheap or tasty fish



Pre= before information intervention

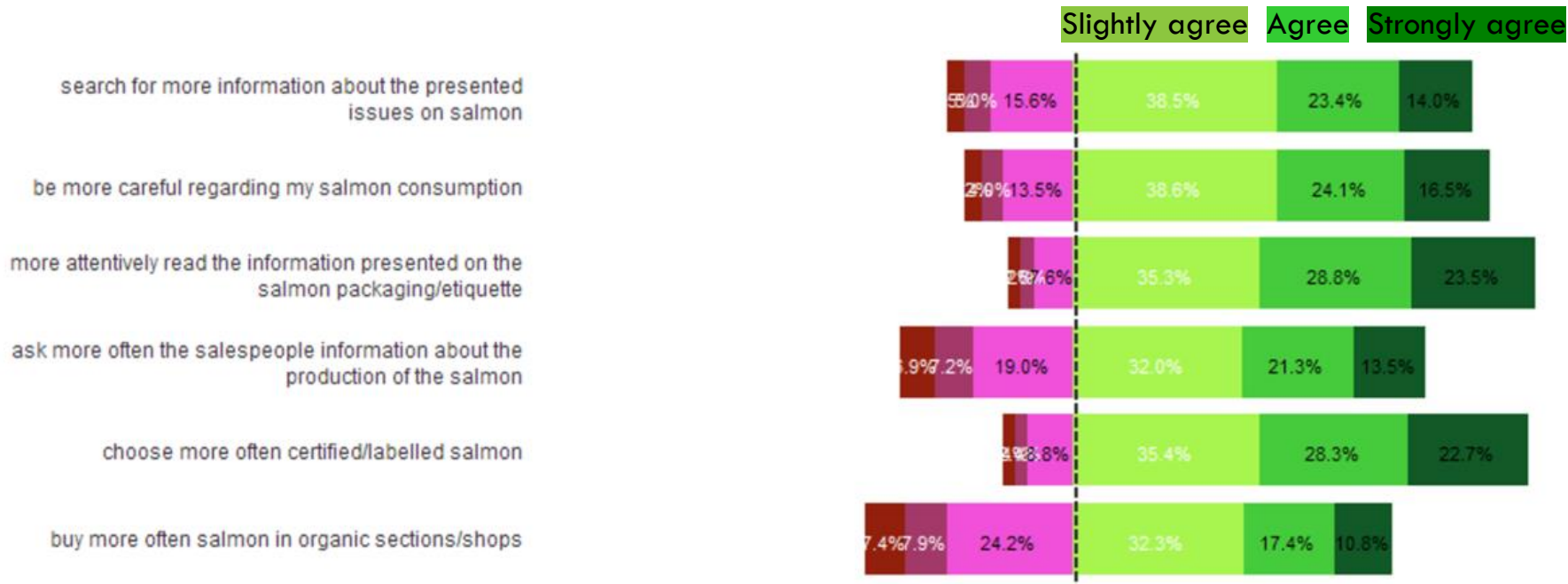
Post= after information intervention

Perception of information

- Messages were perceived as credible and important
- No significant difference in attitude changes from the different source of information
- **Official and unofficial sources had similar impacts**

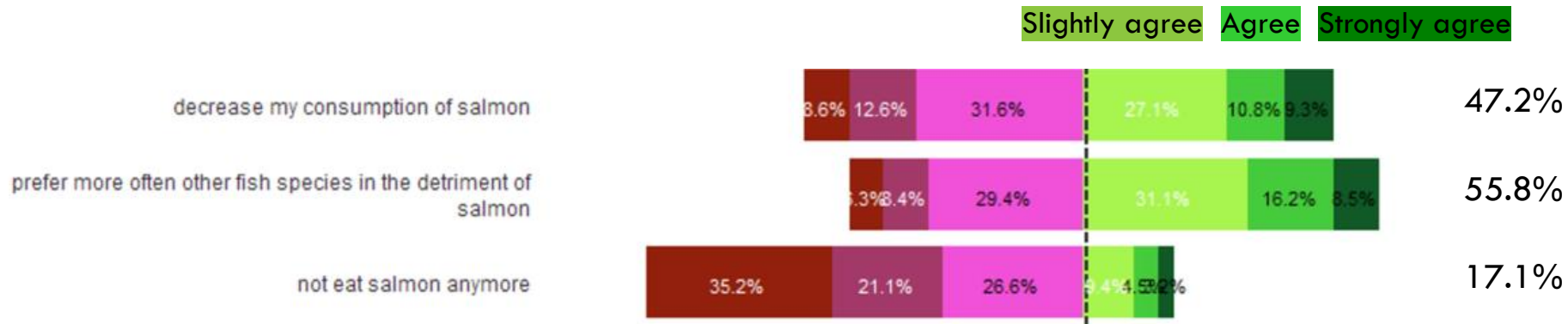
Intentions after stimuli

Please indicate your opinion on the following statements: *After reading this article, I will...*



Impact on intentions to change diet

Please indicate your opinion on the following statements: *After reading this article, I will...*



Effects of negative press – main message

- Impacted attitude of salmon consumption
 - Diminishing value perception of
 - Health-related aspects
 - Environmental-related aspects
- No difference in perception of price and taste
- High intentions to seek **further information** and/or to chose certified or organic products
- High intentions to change diet
 - **Decrease consumption of salmon or switch to other species**
- No difference in the type of information source
 - **Official and unofficial sources had similar impact**

Farmed in the EU

- Knowledge on seafood products is poor
 - At the consumer level
 - At the retail level
- EU initiative such as “Farmed in the EU” is very important
 - Healthy, fresh, sustainable, local products from trusted sources
- To educate and inform
 - Students
 - Consumers – especially when they want further information
- But important also to use to inform and educate
 - Sales personnel in retailers
- Should the EU set up a certification scheme and a logo for differentiation?
 - For consumer products, “Farmed in the EU”

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- Canadian Centre for Fisheries Innovation (MUN)

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