

Profiling solutions on the Frosmo Platform

This document introduces the concept of website visitor profiling and describes the options the Frosmo Platform provides for addressing profiling issues.

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Introduction to profiling

Website visitor profiling essentially means that you collect data about the behavior and potential interests of your website visitors, and then use that data to provide the visitors with relevant, targeted content. For example, on a sports equipment web store, you can track the visitors' location and the product categories and pages they most often visit (such as women's running shoes), and use that information to target them with recommendations relevant for them (such as women's running shoes appropriate for the season and climate of the visitor).

The advantage of profiling is that you can use it to segment markets and tailor services and products to align with individual needs. Other sectors than ecommerce, such as education and healthcare, can also benefit from profiling.

GDPR, profiling, and consent

The [General Data Protection Regulation \(GDPR\)](#), applicable in the EU/ETA area, is designed to make profiling and automated decision-making more transparent to individual persons ("data subjects"). The underlying concern, according to the [Article 29 Data Protection Working Party guidelines](#), is that "profiling can enforce existing stereotypes and social segregation. It can also lock a person to a specific category and restrict them to their suggested preferences [...] or lead to denial of services and goods".

According to the GDPR, profiling is always:

- **Automated** data processing
- Carried out on **personal data**
- Performed to **evaluate the personal aspects** (including economic situation, health, personal preferences and interests, reliability, behavior, and location or movement) of a **natural person**

This means that data tracking, for example for analytics purposes, is not considered profiling. It becomes profiling only when it involves personal data of a natural person that is used to evaluate and predict the performance, interests, or behavior of that person.

To profile website visitors and, more broadly, to collect and process personal data about them, you need their consent. Consent means that your visitors freely opt in to data processing, have an ongoing control over how you process their data, and have an opportunity to withdraw their consent at any time. Providing the visitors with a clear opt-in/opt-out option with an explanation of how their data will be used is a good way to seek consent.

However, according to the GDPR, consent is not the only lawful basis to personal data processing. For more information about the other lawful bases, see, for example, the [Guide to the General Data Protection Regulation \(GDPR\)](#) by the UK Information Commissioner's Office (ICO).

Frosmo and profiling

In the Frosmo Platform, the following features are related to profiling:

- Campaigns
- Conversion definitions
- Custom actions (for example, when using geolocation)
- Modification settings that define whether to show the modification based on visitor history
- Segmentation and segment groups
- Target groups

The features can be considered profiling in that they use data about visitor behavior in targeting content to visitors. As mentioned above, segmenting visitors or collecting behavioral data is not profiling in and of itself.

In a relationship between Frosmo and a customer, the customer always represents the data controller, and Frosmo always acts as the data processor. This means that the legitimate and specific purpose for collecting personal data through the Frosmo Platform is always determined by the customer. In addition, the customer ensures that the data subjects have given their consent, one way or another, to data collection and profiling.

If the customer chooses to seek explicit consent by providing visitors with an opt-in/opt-out option, a visitor can refuse profiling. The Frosmo Platform provides the following options for ensuring that no profiling-based content is shown to visitors who opt out:

- [Disabling the Frosmo Platform for a visitor](#)

Do not deliver any content to visitors through the Frosmo Platform.

- [Implementing selective profiling for a site](#)

Target visitors with dedicated content based on whether or not they have given their consent to profiling. You can show content only to visitors who have opted in, only to visitors who have opted out, or to all visitors irrespective of their profiling choice.

Disabling the Frosmo Platform for a visitor

Disabling the Frosmo Platform for a visitor means that the visitor will not get any content delivered through the Frosmo Platform on the site. As a rule, Frosmo implements this solution for you. If you want to implement this solution on your own, contact [Frosmo support](#).

Disabling the Frosmo Platform for a visitor works as follows:

1. The visitor enters the site.
2. The site displays a consent pop-up or similar prompt to the visitor.
3. The visitor either accepts (opts in to) or refuses (opts out of) profiling.
4. Depending on the visitor's choice, the Frosmo Platform behaves in one of the following ways:
 - If the visitor opted in, the Frosmo Platform shows them personalized modifications based on their behavior on the site. For example, the visitor sees product recommendations for products they have viewed on the site.
 - If the visitor opted out, the Frosmo Platform sets the `frosmo=off` cookie in the visitor's browser. This cookie prevents the Frosmo scripts from loading on that specific browser. The visitor is shown generic content not delivered through the Frosmo Platform. Depending on your site configuration, this may have a significant impact on the usability and user experience of the site.

You can check your site layout with the Frosmo Platform disabled by adding the `frosmo=off` parameter to any page URL on your site. For example, if the page URL in your browser's address bar is `https://frosmo.com/`, you can check the no-Frosmo layout by changing the URL to `https://frosmo.com/?frosmo=off`.

Implementing selective profiling for a site

Selective profiling allows you to target visitors with dedicated content based on whether or not they have given their consent to profiling. You can show content only to visitors who have opted in, only to visitors who have opted out, or to all visitors irrespective of their profiling choice. Before you can implement selective profiling with modifications, however, you must [enable selective profiling for the site](#).



Selective profiling only affects modifications. If you use other profiling-related items, such as campaigns, conversion definitions, or custom actions on your site, you must disable them manually (unless you have consent from your site visitors or another lawful basis for processing their personal data).

When selective profiling is enabled, the Frosmo JavaScript library still collects modification performance data, product data, and visitor data that can be used to monitor modification performance or to create other statistics about the traffic on your site. However, that data is not used to show targeted content to visitors who have refused profiling.

Selective profiling works as follows:

1. The visitor enters the site.
2. The site displays a consent pop-up or similar prompt to the visitor.
3. The visitor either accepts (opts in to) or refuses (opts out of) profiling. The choice is registered and stored in the browser's local storage.
4. Depending on the visitor's choice, the Frosmo Platform behaves in one of the following ways:
 - If the visitor opted in, the Frosmo Platform shows them personalized modifications based on their behavior on the site. For example, the visitor sees product recommendations for products they have viewed on the site.
 - If the visitor opted out, the Frosmo Platform shows them generic content modifications not based on their behavior. For example, the visitor sees product recommendations based on the most viewed or purchased products on the site.



When a returning visitor (who was profiled before selective profiling was implemented) enters the site, they may see personalized content until they make the choice to opt in to or opt out of profiling. However, the consent prompt should be disruptive, preventing the visitor from using the site until they have made the choice.

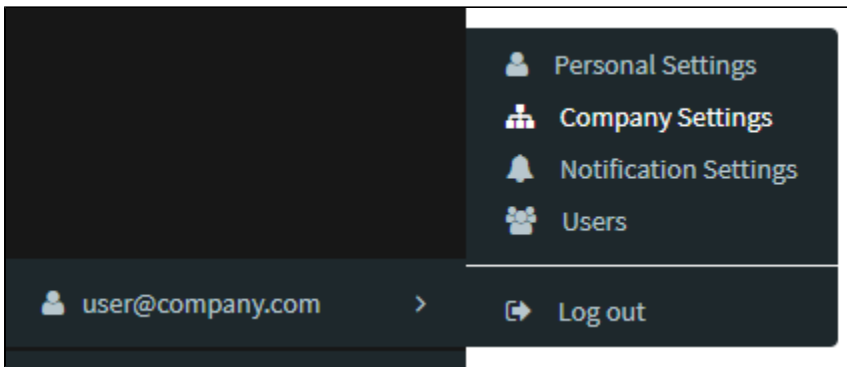
Enabling and disabling selective profiling for a site



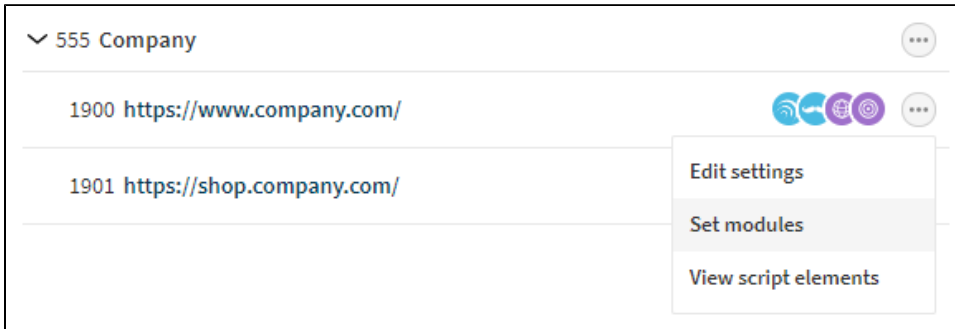
Only certain Frosmo users can enable and disable selective profiling for a site. If you're a [company user](#), and if you want to enable or disable selective profiling for your site, contact [Frosmo support](#).

To enable selective profiling for a site:

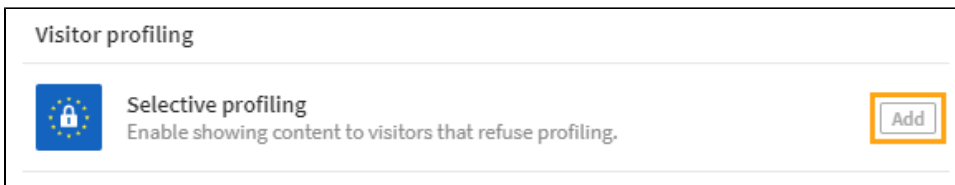
1. In the Frosmo Control Panel, click your user name, and select **Company Settings**.



2. Click the quick menu button for the site, and select **Set modules**.



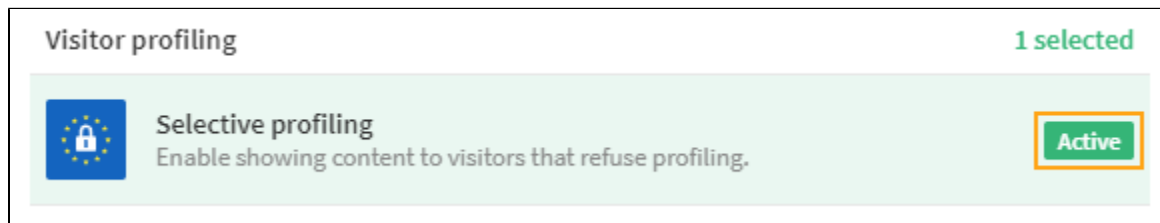
3. Click **Add** for **Selective profiling**.



4. Click **Close**.

You have enabled selective profiling for the site.

To disable selective profiling for the site, follow the above steps, but click **Active** for **Selective profiling**.



Registering a visitor's choice on the site

After enabling selective profiling for your site in the Control Panel, you have to update the site itself with a feature that seeks visitor consent and sends the visitor's profiling choice to the Frosmo Platform. If you like, your Frosmo team can create the feature and set up the registration call for you.

To register the visitor's choice:

1. Make sure you've [enabled selective profiling for the site](#).
2. Implement a UI component, such as a banner or a pop-up, for registering the visitor's consent (or refusal).
3. When the visitor makes a choice to accept or refuse profiling, call the appropriate Frosmo Core function:
 - `frosmo.easy.profile.enable()`: Enable profiling for the visitor.
 - `frosmo.easy.profile.disable()`: Disable profiling for the visitor.

The Frosmo Platform does not recognize a visitor as such (unless they are logged in). Instead, the platform recognizes the visitor's browser. Based on the browser data, each visitor is assigned a unique visitor ID that allows the platform to identify the browser on the site, or across domains and sites. The information about the profiling choice registered for a specific visitor ID is stored in the browser's local storage.



The web page must be reloaded after the visitor makes the choice to accept or refuse profiling. Selective profiling does not automatically refresh the page, so you may want to force the page to refresh after the visitor has made their choice.

Managing selective profiling for modifications

When selective profiling is enabled for a site, the Frosmo Platform automatically flags each modification on the site with one of the following profiling states:

- **All:** The modification is shown to both visitors who have consented to profiling and visitors who have refused profiling. The modification cannot use any profiling features.
- **Opt in:** The modification is shown to visitors who have consented to profiling. The modification can use profiling features.
- **Opt out:** The modification is shown to visitors who have refused profiling. The modification cannot use any profiling features.

Which state the platform assigns to a modification depends on the [modification case](#) and, if applicable, the modification's profiling setting.

Table: Profiling state based on modification case and profiling setting

Profiling state	Modification case	Profiling setting
All	Selective profiling	All
Opt in	A/B test Multi-armed bandit Personalization	N/A
Opt out	Selective profiling	No profiling

The following table shows how a visitor's profiling choice (leftmost column) and the profiling state of a modification (top row) together determine whether the platform shows the modification to the visitor. For example, if the visitor has opted out, the platform will only show them modifications whose profiling state is **All** or **Opt out**, while modifications whose state is **Opt in** are hidden from the visitor.

Table: Showing vs. hiding a modification based on profiling choice and profiling state

Visitor's choice	All	Opt in	Opt out
Opt in	Show	Show	Hide
Opt out	Show	Hide	Show
None	Show	Show	Show

Create your profiling-managed modifications based on who you want to target and with what type of content:

- If you want to implement targeted content for segmented or otherwise profiled visitors, create a modification using one of the following cases:
 - **A/B test**
 - **Multi-armed bandit**
 - **Personalization**

For more information about creating the modification, see [Creating and editing a modification](#).

- If you want to implement dedicated or alternative content for visitors who have opted out, create a modification using the **Selective profiling** case, and set the profiling setting to **No profiling**.

For more information about creating the modification, see [Creating a modification for selective profiling](#).

- If you want to implement generic content, such as UI improvements and bug fixes, for all visitors irrespective of their profiling choices, create a modification using the **Selective profiling** case, and set the profiling setting to **All**.

For more information about creating the modification, see [Creating a modification for selective profiling](#).



Selective profiling modifications can only have a single variation, and you cannot use the comparison group with these modifications.

Creating a modification for selective profiling

To create a modification using the **Selective profiling** case:

1. In the Control Panel, select **Modifications > Overview**.
2. Click **Create modification**.
3. Enter a descriptive name for the modification, select **Selective profiling** as the modification case, and click **Create**.

Name*

Site Banner

A/B test
Test two or more content variations for the same modification.

Multi-armed bandit
Test multiple content variations for the same modification, and dynamically select the best-performing variation.

Personalization
Create a single piece of content that you can personalize.

Selective profiling
Create non-personalized content that is safe to display to visitors who have refused profiling.

Cancel Create

4. Define the profiling setting for the modification:

- If you want to target only non-profiled visitors, select **No profiling**. Only visitors whose profiling choice is **Opt out**, or who have yet to make their choice, will see the modification.

Segments

The modification is only displayed to visitors who have refused profiling.

If the modification case is **Selective profiling**, you cannot use segments to define the target audience.

Select **No profiling** to display the modification only to visitors who have refused profiling. Select **All** to display the modification to all visitors.

No profiling All

- If you want to target all visitors irrespective of their profiling choices, or lack thereof, select **All**.

Segments

The modification is displayed to all visitors.

If the modification case is **Selective profiling**, you cannot use segments to define the target audience.

Select **No profiling** to display the modification only to visitors who have refused profiling. Select **All** to display the modification to all visitors.

No profiling All

5. Define the placement, content, and other modification settings. For more information, see [Creating and editing a modification](#).



The modification has a single variation whose content you can define. You cannot remove the variation or add additional variations, and you cannot use the comparison group with the modification.



The following profiling-related settings are disabled in the modification:

- Segments
- In advanced settings:
 - Display interval
 - Max. displays per visitor
 - Target groups

In addition, avoid using [states](#) (custom actions used to determine whether the modification is displayed to visitors) in the modification. Using a visitor's state (for example, whether the visitor is logged in) to determine when to display modifications can be considered profiling.

Viewing the modification profiling states

When selective profiling is enabled for a site, all the modifications on the site are labelled based on their profiling state.

To view the profiling setting of a modification, in the Control Panel, select **Modifications > Overview**. You can see a state label for each modification.

64662 My Account Menu User Menu All	●	🕒 25.11.2019 12:30
64661 Checkout Changes Checkout Page Opt out	●	🕒 25.11.2019 12:26
64434 Product Recommendation Shopping Cart - After Product List Opt in	● ●	🕒 07.10.2019 10:29

Figure: Modifications labelled based on their profiling state