



# POSITIVITY INDEX OF HIROSHIMA PREFECTURE YEAR 2020 (ON 2019 DATA)

Final presentation  
Tuesday, 25th August 2020

## Elements covered in the meeting

1. **Methodological reminders** –  
the positivity index of Japanese prefectures
2. **Positivity index of Hiroshima prefecture** –  
presentation of the results of the calculation
3. **Conclusions**





METHODOLOGICAL REMINDERS

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THE POSITIVITY INDEX OF  
JAPANESE PREFECTURES



# Positivity index architecture

5 dimensions - 26 indicators

DIMENSIONS	INDICATORS	
Positive Environment	1	Renewable energies - 再生可能エネルギー
	2	Recycling - リサイクル
	3	Air quality - 大気の質
	4	Water management - 水質管理
	5	Protection of natural environment and biodiversity - 自然環境及び生物多様性の保護
Positive Dynamism	6	Liquidity index - 流動指数
	7	Self-financing capacity - 自己資金能力
	8	Attractiveness for company's founders - 企業の創業者にとっての魅力
	9	Volunteering - ボランティア
	10	Social and solidarity economy - 社会的連帯経済
Positive Inclusion	11	Trust and respect - 信頼及び尊敬
	12	Social inequalities - 社会的不平等
	13	Youth inclusion - 若者の関与
	14	Social housing - 公営住宅
	15	Day nursery availability - 託児所の利用
Positive Quality of Life	16	Cultural policies and initiatives - 文化政策及びイニシアティブ
	17	Access to mobility on the territory - 地域の交通機関へのアクセス
	18	Access to health services and cares on the territory - 地域の医療サービスへのアクセス
	19	Access to digital services - デジタルサービスへのアクセス
	20	Access to sport - スポーツへのアクセス
	21	Demographic attractiveness - 人口統計学的魅力
Positive Governance	22	Operational plan based on Paris' Agreement at the territory scale - 地域規模でのパリ協定に基づく業務計画
	23	Existence of an instance representing future generations - 将来世代を代表する団体の存在
	24	Democracy at local level - 地域の民主主義
	25	Existence of Organizational Social Responsibility policies - 社会的責任政策の明文化
	26	Representativeness of local Assembly and prefectural Administration - 県議会の代表性

# Principles of the methodology of calculation


- The positivity index of Japanese prefectures uses a **universal method** (the same reasoning is applied to calculate the positivity index of other territories around the world). However, we were led to implement some **technical adjustments** (in close consultation with the prefecture) to deal with constraints as well as possible, particularly in terms of accessible data. One must therefore **be cautious** when comparing the results of this index with territories elsewhere in the world, particularly in France;
- The index has both **quantitative** (e.g. renewable energies or youth inclusion) and **qualitative** indicators (e.g. existence of a body or organization representing future generations);
- The thresholds have been defined using one of the following three methods: a **benchmark of Japanese prefectures**; a **theoretical definition** of ideal thresholds; the application of **binary indicators** (Yes/No);
- **Bonuses/maluses** can be obtained for each indicator depending on their evolution **over the last 5 years** and on the **existence or absence of 5-year targets** with two key rules:
  - If the maximum score is reached for a given dimension, the bonuses are neutralized (there cannot be a score per dimension higher than 100%);
  - The absence of 5-year objectives is neutral but the presence of objectives is valued (bonus) according to the year in which the objective is reached (maximum bonus if the objective is set for n+5 years).
- Indicators all have the **same weight** within a dimension and are treated equally. The **score per dimension** is calculated by averaging out the **scores of each indicator** in a given dimension (including bonus/malus adjustments)
- The **overall score** is the average of scores obtained in **each dimension**.



# POSITIVITY INDEX OF HIROSHIMA PREFECTURE

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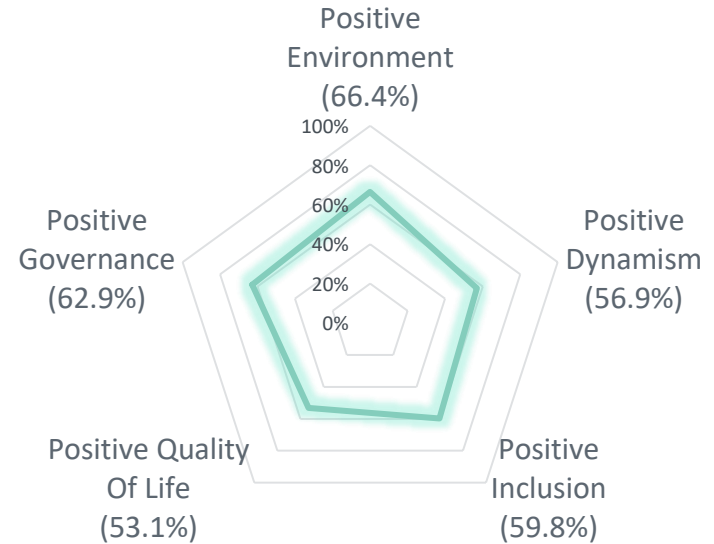
## PRESENTATION OF THE RESULTS OF THE CALCULATION



# Overview of the global score

Dimensions	Score
Positive Environment	66.4%
Positive Dynamism	56.9%
Positive Inclusion	59.8%
Positive Quality Of Life	53.1%
Positive Governance	62.9%

Global Score  
59.8%



# Overview of the indicators' scores

DIMENSIONS	INDICATORS		SCORES
Positive Environment	1	Renewable energies - 再生可能エネルギー	27%
	2	Recycling - リサイクル	48%
	3	Air quality - 大気の質	102%
	4	Water management - 水質管理	79%
	5	Protection of natural environment and biodiversity - 自然環境及び生物多様性の保護	75%
Positive Dynamism	6	Liquidity index - 流動指数	71%
	7	Self-financing capacity - 自己資金能力	105%
	8	Attractiveness for company's founders - 企業の創業者にとっての魅力	25%
	9	Volunteering - ボランティア	41%
	10	Social and solidarity economy - 社会的連帯経済	42%
Positive Inclusion	11	Trust and respect - 信頼及び尊敬	45%
	12	Social inequalities - 社会的不平等	46%
	13	Youth inclusion - 若者の関与	65%
	14	Social housing - 公営住宅	39%
	15	Day nursery availability - 託児所の利用	104%
Positive Quality of Life	16	Cultural policies and initiatives - 文化政策及びイニシアティブ	42%
	17	Access to mobility on the territory - 地域の交通機関へのアクセス	52%
	18	Access to health services and cares on the territory - 地域の医療サービスへのアクセス	51%
	19	Access to digital services - デジタルサービスへのアクセス	85%
	20	Access to sport - スポーツへのアクセス	36%
	21	Demographic attractiveness - 人口統計学的魅力	52%
Positive Governance	22	Operational plan based on Paris' Agreement at the territory scale - 地域規模でのパリ協定に基づく業務計画	0%
	23	Existence of an instance representing future generations - 将来世代を代表する団体の存在	100%
	24	Democracy at local level - 地域の民主主義	38%
	25	Existence of Organizational Social Responsibility policies - 社会的責任政策の明文化	120%
	26	Representativeness of local Assembly and prefectural Administration - 県議会の代表性	57%



# Positive environment



**Global Score**

**66.4%**



## Indicator 1: Renewable energies - 再生可能エネルギー

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of renewable energy consumption in total energy consumption	24% for a score of 100%	4.02%	24.4% (Tottori)	6.58% (2017)	6.35% (2012)

Score  
27%

This score is the result of the comparison of the share of renewable energy consumption in total energy consumption of Hiroshima (6.58% in 2017) with a threshold based on the national objective for 2030 detailed in the New Strategic Energy Plan adopted in 2018 (24%). The performance of Hiroshima compared to the average performance of prefectures (share of 4.02%) is satisfying. Nevertheless, there is room for improvement as it is far from the national objective. Tottori is an exemplary prefecture, with 24.4% of renewable energy in its mix.

## Indicator 2: Recycling - リサイクル

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Recycling rate (share of recycled material waste in total material waste)	19.2% for a score of 50%	19.2%	30.6% (Yamaguchi)	20.6% (2018)	22.1% (2013)

(Does not include industrial waste, only municipal)

Score  
48%

The performance of Hiroshima (20.6% recycling rate) is close to the average performance of prefectures (19.2%). However, the performance of 2018 is worse than of 2013, which explains why the score is slightly below 50%. The exemplary prefecture is Yamaguchi, with a recycling rate of 30.6% and Hiroshima is ranked 19th among the other prefectures.

## Indicator 3: Air quality - 大気の質

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of days in the year with low or really low air quality	100% for a score of 100%	NA	NA	9 days 2.47% (2019)	39 days 10.7% (2014)

Score  
102%

The performance of Hiroshima is very satisfying for this indicator. The score is above 100% because it has improved since 2014. Indeed, in 2019, the number of days during which the air quality was low or very low was only 9, which is a great improvement compared to the 39 in 2014.

## Indicator 4: Water management - 水質管理

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Water quality (share of tests in compliance with regulatory requirements)	100% for a score of 100%	NA	NA	86.8% (2018)	87.5% (2014)
Rate of leakage in the water distribution system	9.16% for a score of 50% 0% for a score of 100%	9.1%	3.2% (Tokyo)	5.20% (2018)	5.26% (2013)

Score  
79%

Regarding water quality, the performance of Hiroshima is satisfying, with 88% of complying tests.

Regarding the rate of leakage, Hiroshima performs better than the average, but there is still some room for improvement. Tokyo is the best performing prefecture with a rate of leakage of 3.2%. Hiroshima is in the top ten of the best performing prefectures.

## Indicator 5: Protection of natural environment and biodiversity

### 自然環境及び生物多様性の保護

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of green and vegetated surface area in total territory surface	68% for a score of 50% 88% for a score of 100%	68%	87,5% (Kochi)	79.5% (2015)	80.0% (2010)

Score  
75%

The performance of Hiroshima is satisfying for this indicator, ranking above average. Nevertheless, its performance has decreased slightly from 2010 to 2015. The best performing prefecture of this indicator is Kochi, with 87.5% of green and vegetated surface.

# Positive dynamism



**Global Score**

56.9%



## Indicator 6: Liquidity index - 流動指数

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Ratio of annual available cash and short-term bank lines in total financial expenses	2.82 for a score of 100%	NA	2.82 (Aichi)	2.11 (2018)	2.16 (2017)

Score  
71%

The performance of Hiroshima is satisfying, close to the best performance of Fukuoka and Aichi. Nevertheless, it is slightly worse than that of 2017.



## Indicator 7: Self-financing capacity - 自己資金能力

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Financial resources generated by the city that could be used to cover its financial needs (million ¥ per inhabitant)	0.406 for a score of 100%	NA	0,406 (Hiroshima)	0.406 (2018)	0.379 (2017)

Score  
105%

The performance of Hiroshima is very satisfying. It is above the performances of Fukuoka and Aichi prefectures, which are considered as well-performing regarding their local finances. Moreover, it has slightly improved since that of 2017.

## Indicator 8: Attractiveness for companies' founders

### 企業の創業者にとっての魅力

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Number of companies created per failure per 100,000 inhabitants	0,57 for a score of 50%	0.57	1.57 (Kochi)	0.32 (2016)	0.36 (2011)

Score  
25%

The performance of Hiroshima can be improved for this indicator. It is below average and slightly worse than in 2014. Kochi is the best performing prefecture with 1.57 companies created per failure per 100,000 inhabitants.

## Indicator 9: Volunteering - ボランティア

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of volunteering population per 100,000 inhabitants	24,756 for a score of 50%	24,756	29,928 (Shiga)	22,422 (2016)	25,625 (2011)

Score  
41%

The performance of Hiroshima is slightly below average and worse than it was in 2011. Shiga is the best performing prefecture with 29,928 volunteers per 100,000 inhabitants.

## Indicator 10: Social and solidarity economy - 社会的連帯経済

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of employees in the social and solidarity economy	0.43% for a score of 50%	0.43%	0.78% (Miyazaki)	0.40% (2016)	0.46% (2012)

Score  
42%

The performance of Hiroshima can be improved. It is below average and slightly worse than that of 2012. Miyazaki is the best performing prefecture with a share of 0.78% employers in social and solidarity economy.

# Positive inclusion



**Global Score**

59.8%



## Indicator 11: Trust and respect - 信頼及び尊敬

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Number of complaints per 100,000 inhabitants	7,096 for a score of 50%	7,096	1,692 (Ibaraki)	8,622 (2018)	11,152 (2013)

**Score**  
**45%**

The performance of Hiroshima is quite satisfying. Although slightly worse than average, it has improved significantly since 2013. Ibaraki is the best performing prefecture with 1,692 complaints per 100,000 inhabitants.

## Indicator 12: Social inequalities - 社会的不平等

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Gini coefficient	0.56 for a score of 50%	0.56	0.43 (Tokyo)	0.55 (2014)	0.47 (2009)

Score  
46%

The performance of Hiroshima is satisfying, being very close to the average. Nevertheless, the latest recorded performance (2014) is worse than the performance of 2009. The best performing prefecture is Tokyo with a GINI coefficient of 0.43.

## Indicator 13: Youth inclusion - 若者の関与

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Youth unemployment rate	2.78% for a score of 50%	2.78%	1.76% (Tokyo)	2.41% (2015)	3.60% (2010)

**Score**  
**65%**

The performance of Hiroshima is satisfying, being above average. There was a significant decrease of youth unemployment between 2010 and 2015. These are very good signs; Hiroshima might be able to make it to the top 10 prefectures in the coming years. The best performing prefecture is Tokyo, with a youth unemployment rate of 1.76%.



## Indicator 14: Social housing - 公営住宅

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of social housing units in total number of housing units	4.2% for a score of 50%	4.19%	8.23% (Osaka)	3.25% (2018)	3.22% (2013)

Score  
39%

The performance of Hiroshima is slightly below average. However, it has improved since 2013 which is a positive sign. It has to continue its efforts, as it is still far away from the top 10 prefectures (starting from 5.5% social housing). The best performing prefecture is Osaka, with a share of 8.23% of social housing units.

## Indicator 15: Day nursery availability - 託児所の利用

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Number of places available in day nursery per 100 children	100 for a score of 100%	95.1	128 (Fukui)*	90.7 (2018)	71.3 (2013)

Score  
104%

The performance of Hiroshima is very satisfying, and it has improved since 2013, which explains why the score is above 100%.

\*Fifteen prefectures have 100 or more places per 100 children, even though 100 places would be enough. Having too many places could even be considered as a sign of inefficiency, but more thorough studies in every prefecture should be carried out to find out why there is more than one place per child in day nursery.

# Positive quality of life



**Global Score**

**53.1%**



## Indicator 16: Cultural policies and initiatives

### 文化政策及びイニシアティブ

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Theatres per 100,000 inhabitants	1.83 for a score of 50%	1.83	3.2 (Shimane)	1.47	1.60
Museums per 100,000 inhabitants	6.34 for a score of 50%	6.34	16.4 (Nagano)	4.56	4.53
Cinemas per 100,000 inhabitants	0.43 for a score of 50%	0.43	0.78 (Ishikawa)	0.49	0.53
Reading places per 100,000 inhabitants	3.29 for a score of 50%	3.29	6.4 (Yamanashi)	2.95 (2018 for all)	3.03 (2015 for all)

Score  
42%

The performance of Hiroshima is quite satisfying, very close to the average. Nevertheless, it has decreased between 2013 and 2015, which explains why the overall score is below average.

## Indicator 17: Access to mobility on the territory

### 地域の交通機関へのアクセス

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of the active population using public transport	15.8% for a score of 50%	15.8%	59.3% (Tokyo)	18.3% (2010)	19.3% (2000)

Score  
52%

The performance of Hiroshima is quite satisfying and above average (however, the latest data available is quite old, being from the year 2010). Nevertheless, it has slightly decreased between 2000 and 2010. The best performing prefecture is Tokyo, with a share of 59.3% of the active population using public transport. This can be explained by the high density of population of the capital city and its public infrastructures.

## Indicator 18: Access to health services and cares on the territory

### 地域の医療サービスへのアクセス

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Physicians per 100,000 inhabitants	264 for a score of 50%	264	347 (Tokushima)	270 (2018)	263 (2014)

Score  
51%

The performance of Hiroshima is satisfying, being slightly above average. Moreover, it has slightly improved since 2014. The best performing prefecture is Tokushima with 347 physicians per 100,000 inhabitants.

## Indicator 19: Access to digital services - デジタルサービスへのアクセス

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Share of housing units equipped with broadband	100% for a score of 100%	78%	89.4% (Tokyo)	78% (2018)	70% (2014)

Score  
85%

The performance of Hiroshima is satisfying and has improved since 2014. Moreover, Hiroshima's performance is equal to the average. Tokyo is the best performing prefecture with a share of 89.4% housing units equipped with broadband.

## Indicator 20: Access to sport - スポーツへのアクセス

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Sportive equipment per 10,000 inhabitants	5.7 for a score of 50%	5.7	10.9 (Tottori)	4.3 (2015)	4.5 (2008)

Score  
36%

The performance of Hiroshima could be improved. It is below average and has slightly decreased between 2008 and 2015. The best performing prefecture is Tottori, with 10.9 sports facilities per 10,000 inhabitants.



## Indicator 21: Demographic attractiveness - 人口統計学的魅力

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Migratory balance : share of people entering and leaving the prefecture territory each year	-0.54% for a score of 50% 0.76% for a score of 100%	-0.54%	0.76% (Tokyo)	-0.36% (2018)	-0.25% (2014)
Share of students in total population	12.8% for a score of 50%	12.8%	17.44% (Kyoto)	13.4% (2019)	13.6% (2014)

Score  
52%

The performance of Hiroshima is satisfying, being slightly above average. However, it has slightly decreased since 2014.

# Positive governance



Global Score

62.9%



## Indicator 22: Operational plan based on Paris' Agreement at the territory scale - 地域規模でのパリ協定に基づく業務計画

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Existence of an operational plan based on Paris' Agreement at the territory scale	Yes = 100% No = 0%	NA	NA	Released in FY2020	No

Score  
0%

This indicator will significantly improve next year, with the release of an operational plan based on Paris' Agreement at the territorial scale.

## Indicator 23: Existence of an instance representing future generations

### 将来世代を代表する団体の存在アクセス

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Existence of an instance representing future generations	Yes = 100% No = 0%	NA	NA	Yes	Yes

Score  
100%

The performance of Hiroshima is very satisfying, thanks to the existence of the All-Japan Prefectural and Municipal workers Union (Jichiro) in each prefecture and each city. In Hiroshima Prefecture, the union includes a youth section. Its missions are to carry out a wide variety of public services in every corner of Japan, to ensure the workers are well taken care of in every aspect of their lives.

## Indicator 24: Democracy at local level - 地域の民主主義

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Participation rate at the last local elections	100% for a score of 100%	45.97%	61.09% (Shimane)	39.8% (2019)	41.7% (2015)

Score  
38%

The performance of Hiroshima is quite satisfying. However, as it has decreased since 2015, the score has been negatively affected. The turnout at Hiroshima's prefecture elections in 2019 is also below average. As a side note, participation in local elections has decreased at a national level too. Nevertheless, the top ten prefectures maintained a participation rate above 50%.

## Indicator 24: Existence of an Organizational Social Responsibility policies - 社会的責任政策の明文化

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Existence of an Organizational Social Responsibility policies in the city's instances	Yes = 100%	NA	NA	Yes	No

Score  
120%

The performance of Hiroshima is very satisfying now that it has formalized its organizational Social Responsibility policies.

## Indicator 25: Representativeness of local Assembly and prefectural Administration - 県議会の代表性

Required data	Threshold	Average of prefectures	Best performing prefecture	Data (latest available)	Data (past)
Women in the assembly	51.50%* for 100%	NA	NA	4.69%	6.25%
Women in the administration	51.50%* for 100%	NA	NA	37.75%	33.95%
Young people (under 35) in the assembly	3.49%** for 100%	NA	NA	1.56%	1.56%
Young people (under 25) in the administration	3.49%** for 100%	NA	NA	4.9%	3.8%

\* 51.50% corresponds to the share of women in the population ; \*\*3.49% corresponds to the share of young employed people in the population

**Score**  
**57%**

The representativeness of the prefectural administration regarding women and young people is very satisfying and has improved since 2014. However, the representativeness of the local assembly could be improved, especially since it has worsened since 2015. The proportion of young people within the local assembly has nonetheless increased since 2014.



POSITIVITY INDEX OF HIROSHIMA  
PREFECTURE

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CONCLUSION OF THE RESULTS OF  
THE CALCULATION





# Analysis of the overall performance

## STRENGTHS

Overall, the Hiroshima prefecture performs quite well. Its achievements are particularly satisfactory in the dimensions “Positive Environment” and “Positive Governance”, especially considering that its performance in that last dimension will improve over the next year with the release of the plan based on Paris’ Agreement at the territory scale.

Regarding the “Positive Inclusion” dimension, although Hiroshima’s performance often only nears the average, the evolution of the various indicators over the years shows some promise for the future.

Hiroshima ranks above average in 11 indicators or sub-indicators (renewable energy, recycling, rate of leakage, share of green territories, GINI coefficient, youth unemployment, cinemas per inhabitant, percentage of people using public transportation, doctors per 100,000 inhabitants, percentage of students in the population and migratory balance)

# Analysis of the overall performance

## WEAKNESSES

There is room for improvement in the “Positive quality of life” dimension, where the prefecture should be wary of not letting its performance decrease further for indicators like “access to sport”.

There is also scope for improvement in the “Positive dynamism” dimension, especially when looking at the prefecture’s attractiveness for companies’ founders.

4 indicators should be given priority:

- Renewable energies - 再生可能エネルギー
- Attractiveness for company’s founders - 企業の創業者にとっての魅力
- Access to sport - スポーツへのアクセス
- Democracy at local level - 地域の民主主義

# THANK YOU FOR YOUR ATTENTION

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la transition positive





# POSITIVITY INDEX OF HIROSHIMA PREFECTURE - ANNEXES



# Explanations – Representativeness of local Assembly and prefectural Administration - 県議会の代表性

	Data	Representativeness of women in the pref. assembly	Representativeness of women in the pref. administration	Representativeness of young people in the pref. assembly	Representativeness of young people in the pref. administration
Share of women in the elected bodies	4.69%	4.69%			
Share of young people (under 35) in the elected bodies	1.56%			1.56%	
Share of women in administration	37.75%		37.75%		
Share of young people (under 25) in administration	4.9%				4.9%
Share of women in the population	51.50%	51.50%	51.50%		
Share of young employed people (under 25) in the population	3.49%			3.49%	3.49%
<b>Result</b> figures of the previous slide		4.69%/51.5% = <b>9.1%</b>	37.75%/51.5% = <b>73.3%</b>	1.56%/3.49% = <b>44.8%</b>	4.9%/3.49% = 140% → <b>100%*</b>

Representativeness evaluates how well the composition of an administration reflects upon the population. Therefore, the aim is to have a sensibly similar proportion of each category in the assembly (or administration) as in the wider population.

\* This indicator was considered as properly representing young people, so restricted to 100%.