



# Assessing the relative impact of trade facilitation measures – the OECD TF Indicators

ARTNeT Conference on Empirical and Policy Issues of  
Integration in Asia and the Pacific,  
1-2 Nov.2012, Colombo, Sri Lanka



# OECD TFIs

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- What is the Impact of TF Measures on Trade Flows and Trade Costs ?
- Following the structure of the Draft Consolidated Negotiating Text
- Aiming to provide a basis for prioritizing trade facilitation actions by governments
- Helping mobilize technical assistance by donors in a targeted way.



# TFIs structure - twelve families of measures

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- Information availability
- Involvement of the trade community
- Advance rulings
- Appeal procedures
- Fees and charges
- Formalities - Documents
- Formalities - Automation
- Formalities - Procedures
- Internal Cooperation
- External Cooperation
- Consularization
- Governance and Impartiality\*

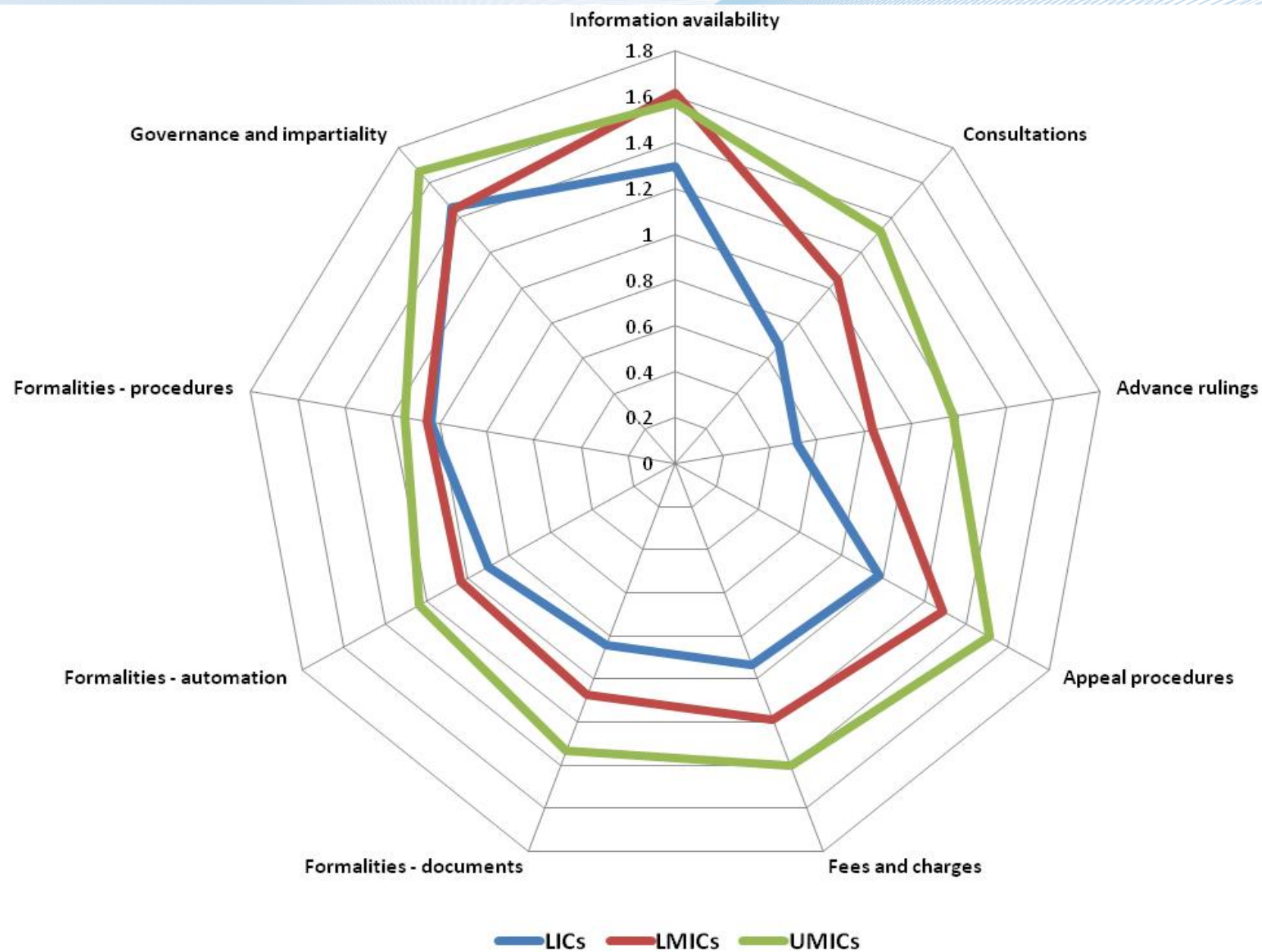


## Extended coverage

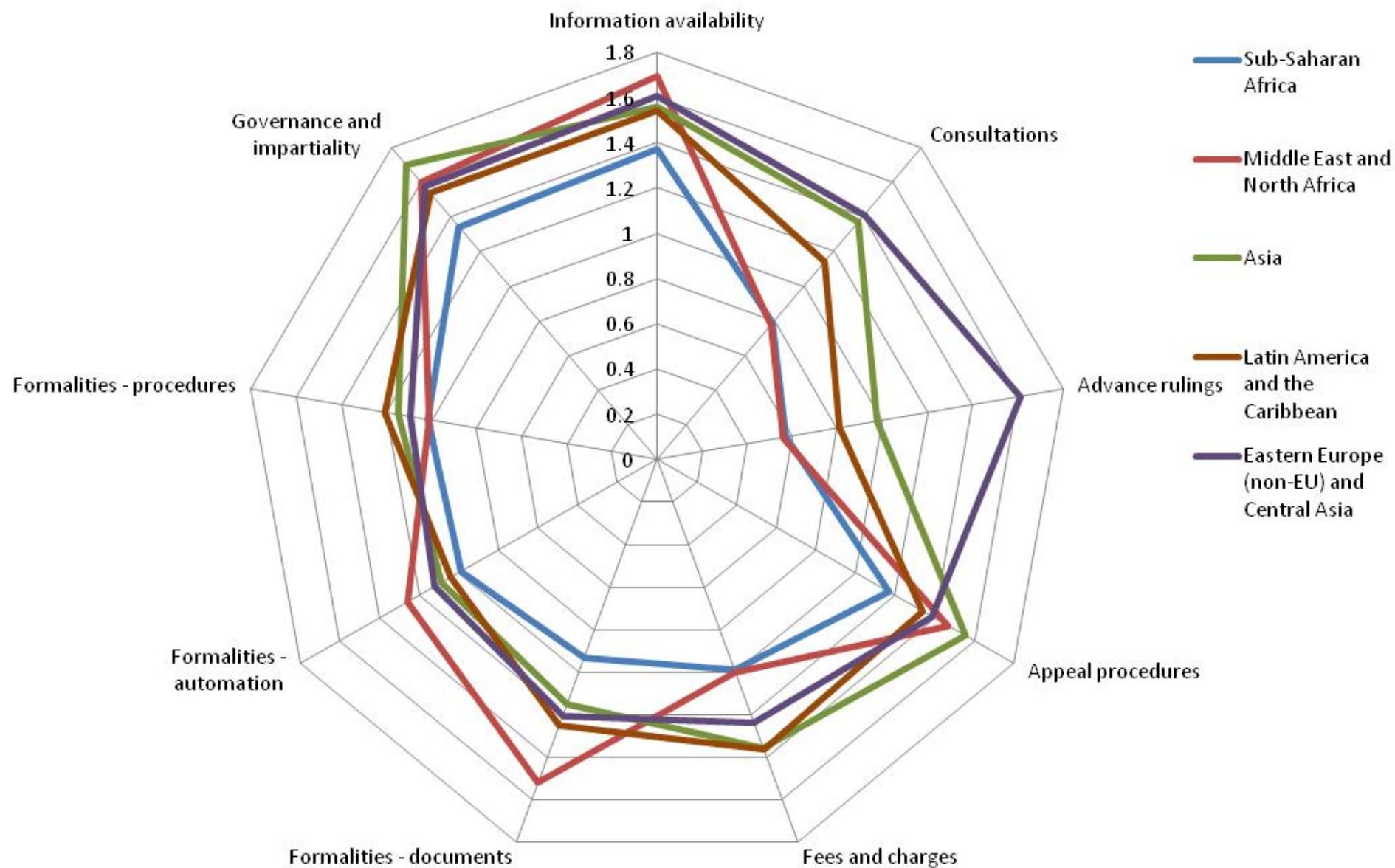
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- 106 non-OECD countries (95 WTO members plus 11 observers)
- Extensive data collection process: Customs websites and regulation, publicly available databases, collaboration with countries' Permanent Delegations to the WTO
- Focus on country groups: income groups, geographic groups, regional economic partnerships groups

# Income groups



# Geographic groups







## Relative impact on trade flows

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- Gravity model of trade - overall trade of goods, manufacture and agriculture
- TFIs are built for one year using the latest information available, thus country-fixed effects cannot be introduced in the model
- We thus employ Baier & Bergstrand (2009) approximation of the multilateral resistance



## *Trade flows specifications*

$$\ln(x_{ijt}^k) = \beta_0^k + \beta_1^k \ln(\text{distance}_{ij})_{MR} + \beta_2^k \text{contiguity}_{ij\_MR} + \beta_3^k \text{language}_{ij\_MR} + \beta_4^k \text{colony}_{ij\_MR} \\ + \beta_5^k \text{rta}_{ij\_MR} + \beta_6^k \text{GDP}_{it} + \beta_7^k \text{GDP}_{jt} + \beta_8^k \text{TFI}_i^c + \text{landlocked}_i + \text{landlocked}_j + D_t + D_k \\ + \varepsilon_{ijt}^k$$

a second specification introducing the geometric average of the importer and exporter TFI will allow smoothing data accuracy issues  $\text{TFI}_{ij}^c = \sqrt{\text{TFI}_i^c \text{TFI}_j^c}$

$$\ln(x_{ijt}^k) = \beta_0^k + \beta_1^k \ln(\text{distance}_{ij})_{MR} + \beta_2^k \text{contiguity}_{ij\_MR} + \beta_3^k \text{language}_{ij\_MR} + \beta_4^k \text{colony}_{ij\_MR} \\ + \beta_5^k \text{rta}_{ij\_MR} + \beta_6^k \text{GDP}_{it} + \beta_7^k \text{GDP}_{jt} + \beta_8^k \text{TFI}_{ij\_MR}^c \\ + \text{landlocked}_i + \text{landlocked}_j + D_t + D_k + \varepsilon_{ijt}^k$$





# Preliminary results - Overall trade and Income groups

Low income	Lower middle income	Upper middle income
(f) Formalities – documents	(h) Formalities – procedures	(h) Formalities - procedures
(g) Formalities – automation	(l) Governance and impartiality	(l) Governance and impartiality
(h) Formalities - procedures	(f) Formalities - documents	(f) Formalities - documents
(l) Governance and impartiality	(a) Information availability	(a) Information availability



# Preliminary results - Overall trade and Geographic groups

Sub-Saharan Africa	Middle East and North Africa	Asia	Latin America and the Caribbean	Eastern Europe (non-EU) and Central Asia
(f) Formalities – documents	(g) Formalities –	(f) Formalities - procedures	(h) Formalities –	(h) Formalities –
(l) Governance and impartiality	(b) Consultations	(g) Formalities – automation	(f) Formalities – documents	(f) Formalities – documents
(g) Formalities - automation	(h) Formalities - procedures	(d) Appeal procedures	(a) Information availability	(a) Information availability

## Trade costs

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- Bilateral trade costs following the methodology developed by Novy (2009); adjusted by Duval and Utoktham (2011) to deal with developing countries' data limitations

$$\tau_{ij} = \left( \frac{t_{ij}t_{ji}}{t_{ii}t_{jj}} \right)^{\frac{1}{2}} = \left( \frac{x_{ii}x_{jj}}{x_{ij}x_{ji}} \right)^{\frac{1}{2(\sigma-1)}}$$



## *Trade costs specifications*

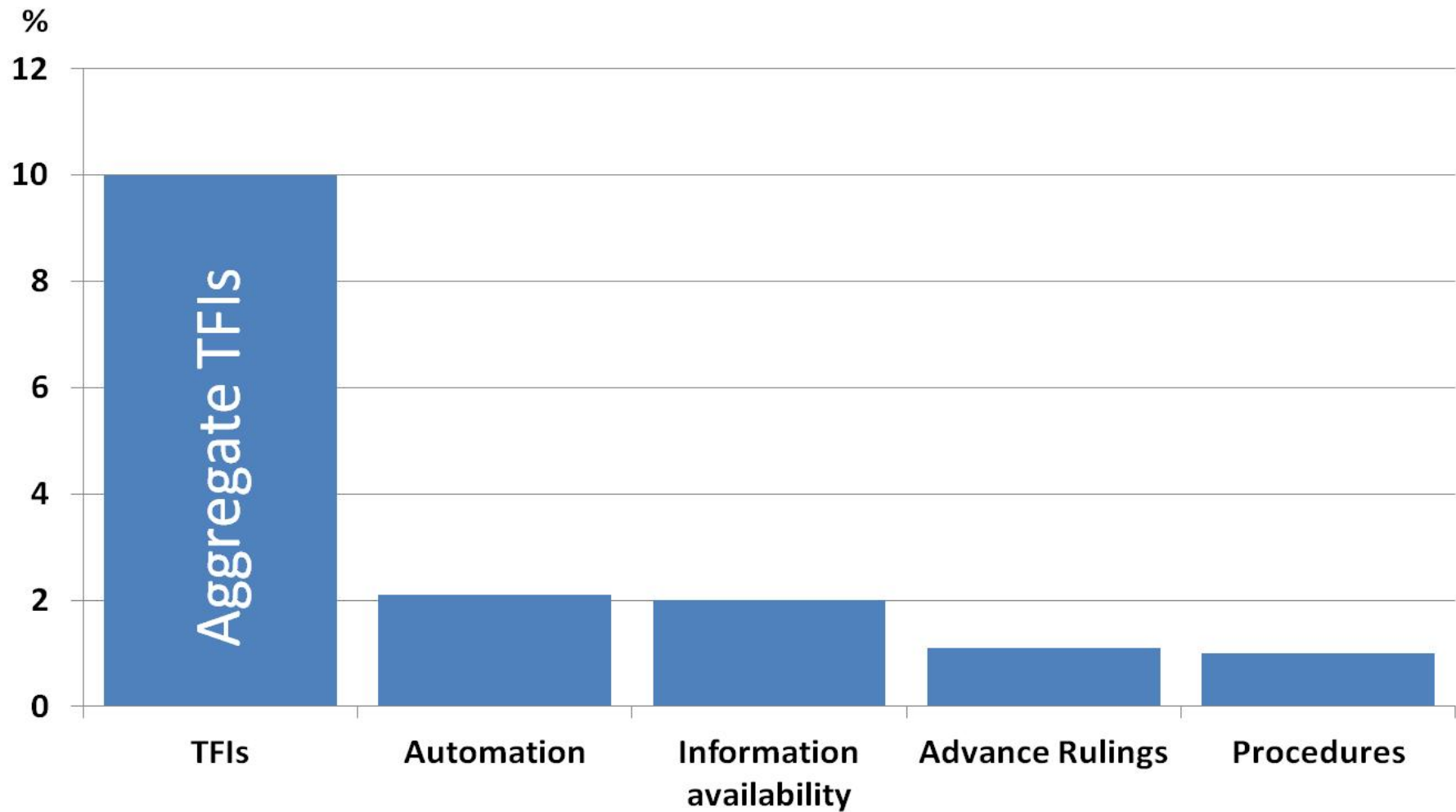
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baseline specification includes the geometric average of the importer and exporter TFI

$$TFI_{ij}^c = \sqrt{TFI_i^c TFI_j^c}$$

$$\ln(\tau_{ijt}^k) = \beta_0^k + \beta_1^k \ln(\text{distance}_{ij}) + \beta_2^k \text{contiguity}_{ij} + \beta_3^k \text{language}_{ij} + \beta_4^k \text{colony}_{ij} + \beta_5^k TFI_{ij}^c + D_{it} + D_{jt} \\ + D_t + D_k + \varepsilon_{ijt}^k$$

# Contribution to the reduction of costs- OECD, all sectors



# Preliminary results - Income groups

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Low income	Lower middle income	Upper middle income
(l) Governance and impartiality	(h) Formalities – procedures	(f) Formalities - documents
(f) Formalities - documents	(l) Governance and impartiality	(l) Governance and impartiality
(g) Formalities – automation	(f) Formalities - documents	(g) Formalities - automation



## Preliminary results - Geographic groups

Sub-Saharan Africa	Middle East and North Africa	Asia	Latin America and the Caribbean	Eastern Europe (non-EU) and Central Asia
(g) Formalities – automation	(g) Formalities -	(g) Formalities – automation	(h) Formalities -	(g) Formalities –
(l) Governance and impartiality	(b) Involvement of the trade community	(f) Formalities - documents	(l) Governance and impartiality	(f) Formalities - documents
(b) Involvement of the trade community	(d) Appeal procedures	(d) Appeal procedures	(f) Formalities - documents	(b) Involvement of the trade community





# Thank you

[www.oecd.org/trade/facilitation](http://www.oecd.org/trade/facilitation)

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