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# Subsidy schemes for promoting renewable energy in the EU and in Finland

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Pekka Ripatti

# First steps to promote RES in EU

- After the oil crisis in the late 1970s
  - Research and development support for new sources of energy as a way to curb oil dependency and enhance European energy security
  - Indicative energy-saving objectives including renewable energy research, demonstrations and regional applications
- Before mid 1990s
  - The promotion of RES was incorporated into the EU's regional policy
  - Most large-scale research and development support from national programmes in a few pioneering EU member states
    - Germany, The Netherlands, Denmark
    - Finland and Sweden who preparing their EU membership

## First explicit RES-Electricity schemes in EU before the 1990s

<b>Year</b>	<b>EU member state</b>	<b>Subsidy instrument</b>	<b>Source of technology or energy</b>
1979	Denmark	Investment subsidy	Wind, biogas
1988	Portugal	Feed-in-Tariff	All technologies
1989	Germany	Investment subsidy and Feed-in-Tariff	Wind
1989	United Kingdom	Tenders for non-fossil fuel obligation	Selected technologies

# Climate change to the centre of EU's agenda

- After Rio earth summit in 1992 EU's objective was to reduce CO<sub>2</sub> emissions by means of RES promotion – e.g. ALTENER-programme
  - A part of wider package of energy and climate measures
  - Strong opposition of certain member states resulted in the failure of the programme
  - Only indicative and modest targets were set up
- In parallel at national level
  - Denmark, Portugal, Germany, Greece, Luxembourg and Spain set more ambitious national targets and adopted FiT schemes to support their RES deployment
- Energy for the future: Renewable sources of energy (1997)
  - Indicative RES target of 12 per cent in EU primary energy consumption by 2010
  - A proposal for EU-wide RES certificates was made due to the various development of subsidy schemes of the member states

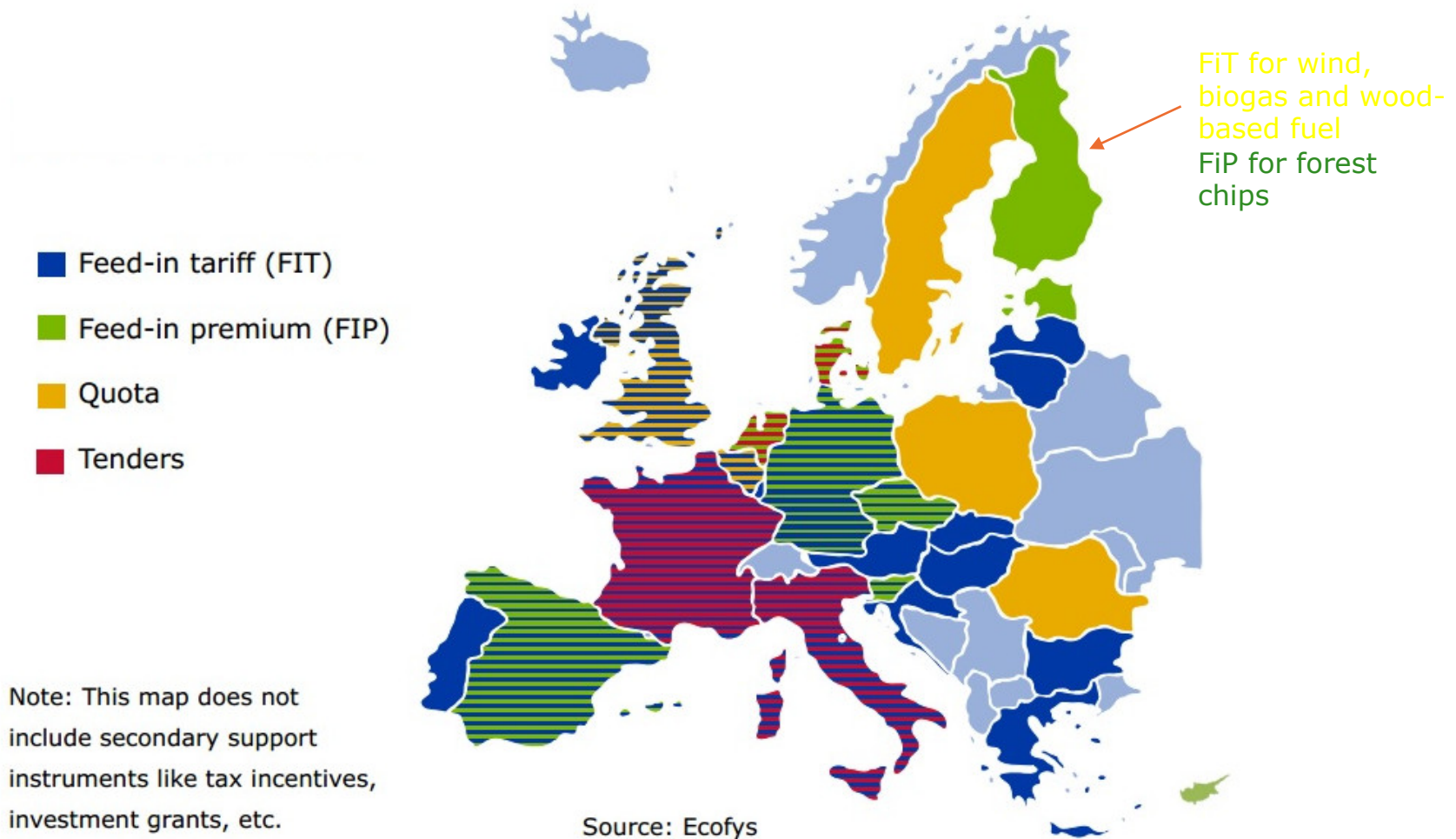
# Major RES subsidy schemes for wind power in 2000 and in 2005

<b>EU member state</b>	<b>2000</b>	<b>2005</b>
• Denmark	FiT	Tender-FiP
• Portugal	FiT	FiT
• Germany	FiT	FiT
• UK	transition phase	TGC
• Italy	-	TGC
• Belgium	TAX	TGC
• Austria	TGC	FiT
• Sweden	FiT	TGC
• Greece	FiT	FiT
• Ireland	Tender	TAX
• Luxemburg	FiT	FiT
• Netherlands	TAX, INV	FiT
• France	Tender	Tender-FiT
• Spain	FiT	FiT, FiP
• Finland	TAX	TAX

# The 2000s and beyond

- 2001 the first legislation which explicitly oriented towards promoting RES
  - The objective was to set up binding targets – however only indicative targets, again
  - Also, the goal was once again to have RES certificates – even this watered down mostly due to the member states that had successfully implemented FiTs
- Renewable energy directive 2009
  - Background: 20-20-20 package, the Kyoto protocol and the Nicholas Stern's Review
  - Finally, binding targets were set for the Member States
  - Harmonization of subsidy schemes failed because of the same reason and by the same member states as in 2001

# Major RES subsidy schemes in EU 2013



# New subsidy schemes through tendering

- Commission Guidelines on State aid for environmental protection and energy 2014
- Set the frameworks for national renewable energy subsidy schemes
- Covers the period from the 1<sup>st</sup> July 2014 to the end of December 2020
- Concerns only new subsidy schemes

→ As a rule, only schemes where level of subsidies is based on tenders





# Implementation status of RES tendering procedures in 2016-2017



# As a result; mixed subsidy schemes in EU

- Different type of subsidy schemes
  - FiT, FiP, TGC, Investment grants
- Different criteria for determining the level of subsidy or the quota
  - Administrative
  - Tender
- Subsidies for different technologies
  - PV, Onshore-wind, Offshore-wind, bioenergy, hydro-power
- What is subsidised?
  - Capacity, production
- Duration of subsidy
  - From 5 to 30 years

Main subsidy scheme	Subsidy is determined	In use in the EU, number
FiT	Administrative	15
FiP	Administrative	11
FiT	Tender	4
FiP	Tender	13
TGC	Administrative	6
INV	Administrative	5

# RES subsidy schemes in Finland



# Towards a competitive subsidy scheme in Finland

- Working group on reform of subsidy schemes (2015-2016)
  - To examine different tendering processes
  - Draw up a proposal for subsidy scheme where the level of subsidy is determined by tendering
- Finnish National Energy and Climate strategy for 2030
  - Was released in November 2016
  - Included proposal for competitive subsidy scheme: It was consistent with the Working Group
- But what was decided in Finnish parliament?
  - Annual production was reduced from 2 TWh to 1,4 TWh
  - Only one bidding round instead of the planned two



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# Thank you!

[pekka.ripatti@energiavirasto.fi](mailto:pekka.ripatti@energiavirasto.fi)



@Pekka\_Ripatti

[www.energiavirasto.fi](http://www.energiavirasto.fi)