Regional workshop on NRW in the Mediterranean
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NRW in Mediterranean Water Utilities: an Overview

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Water Losses in the Mediterranean

* Water scarcity in most countries, plus impact of climate change: **it is more and more unacceptable to lose water!**
* Negative impact on utility's finance: higher costs and lost revenues
* We all know that many countries show poor performance in controlling water losses, but some are doing well
* This workshop: exchange about what works, and what doesn't…

The structure of the workshop

- Next presentation as refresher on NRW issues
- Series of case studies: will look at wide array of cases around the Mediterranean region (from 9 countries)
- Additional presentations on key issues (intermittent supply, metering…) and cases from beyond the region
- 2-hour debate on the challenge of reducing NRW in the Mediterranean
- Close with discussion on CB and partnerships

What are the NRW figures by countries around the Mediterranean ?

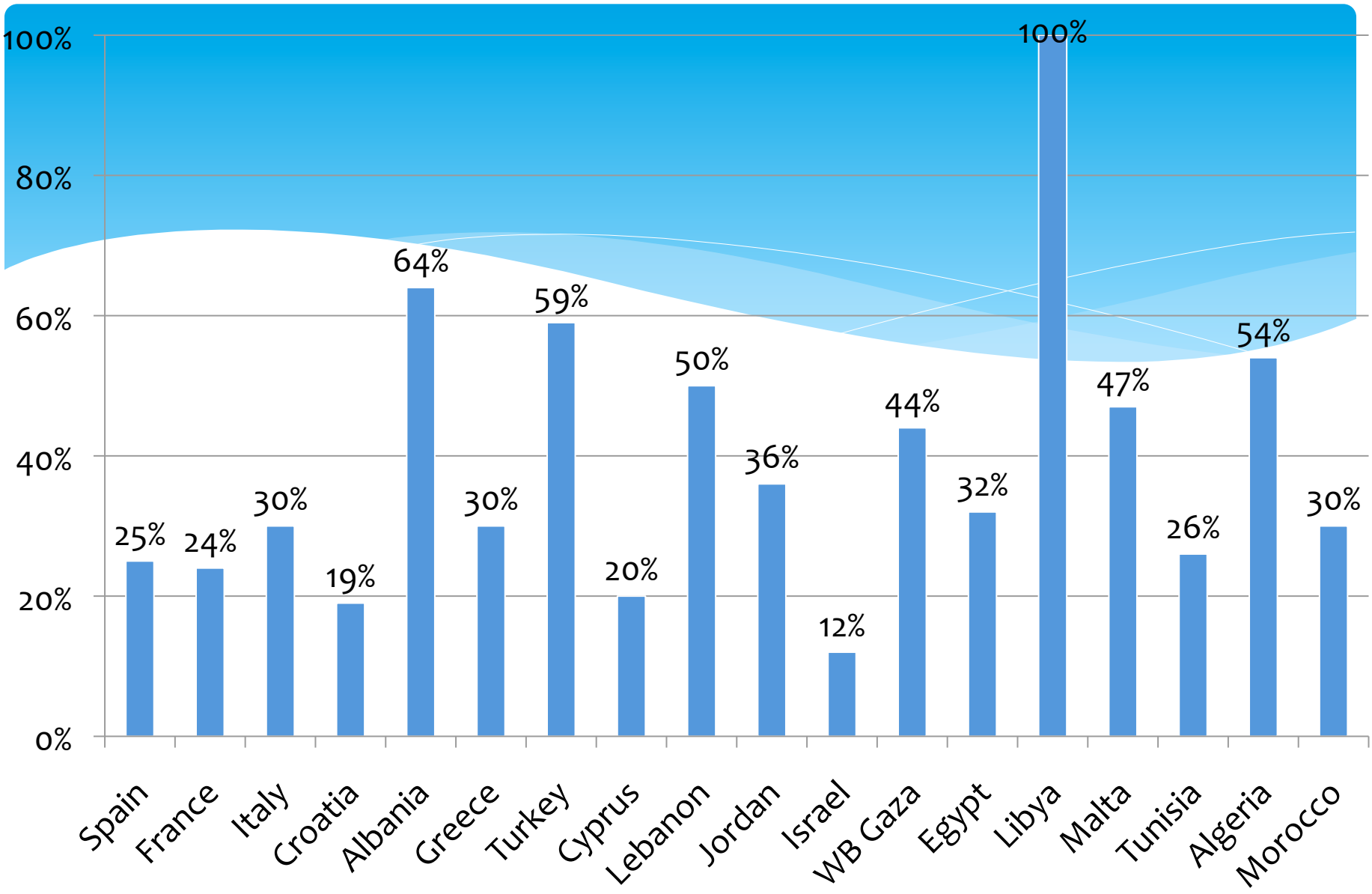
First, a few words of caution…

Word of caution 1: Ratio of Physical vs. Commercial Losses is usually a guess

* **Physical (real) losses:** water produced but not delivered (leakages…): **priority issue under water scarcity**
* **Commercial (apparent) losses:** water delivered to customer, but not billed: **impact is mostly financial…**
* Unless exercise of drawing the IWA hydraulic balance is done in full (Malta, Cyprus, Marseille), **proportion of physical vs. commercial losses is just a guess!**
* **Yet these are radically different issues!**

Words of caution 2: the NRW figure may mean many things

- Is consumption **metered or estimated**?
  - What if estimated billing is above consumption?
- **Intermittent supply** makes figure confusing:
  - Easy to reduce real losses by reducing hours of service!
  - When trying to reestablish 24/7, water losses increase!
- % NRW is the usual indicator to start with, but is highly insufficient to assess situation and make decisions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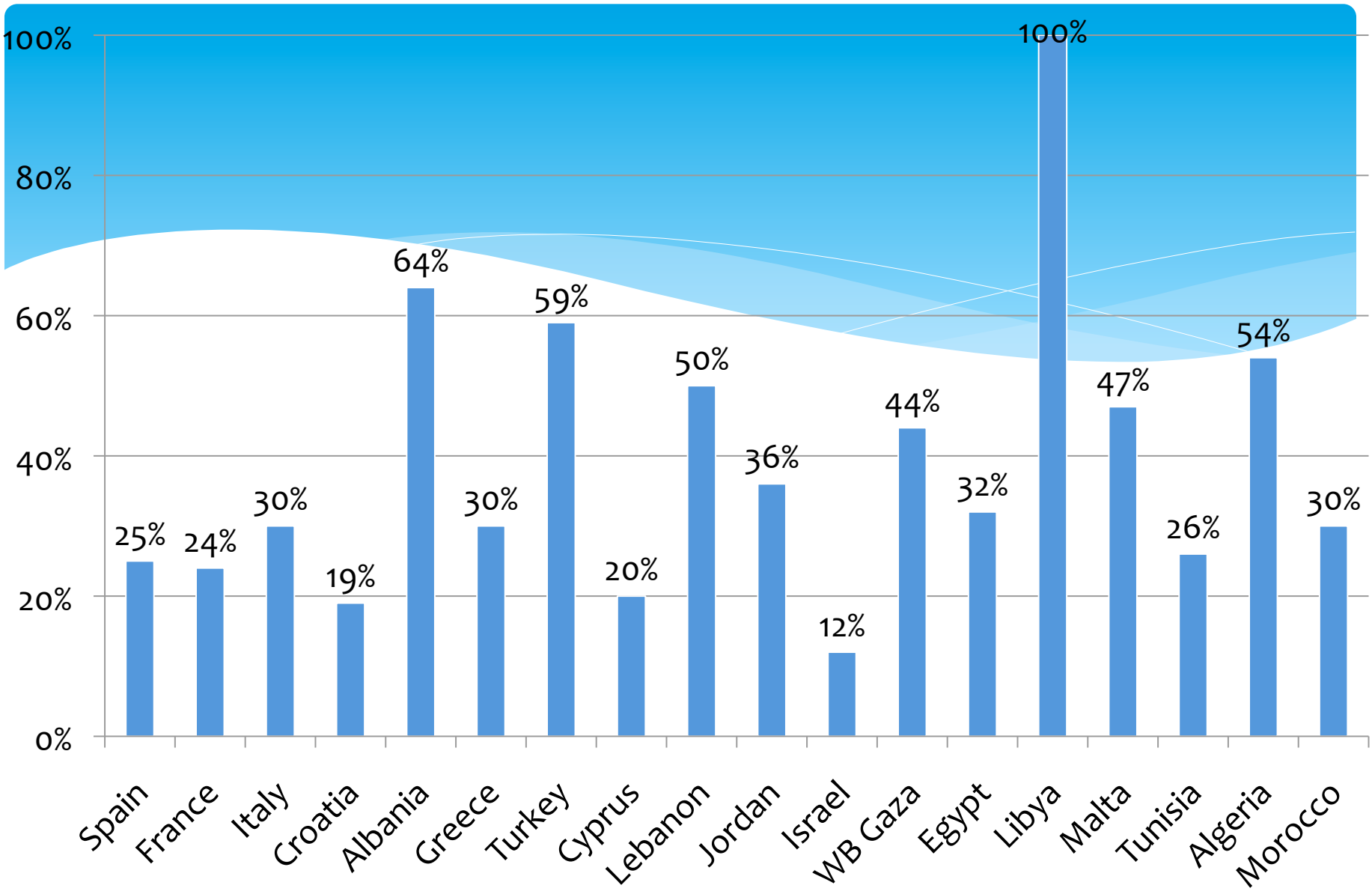
Spain, France and Italy

- They provide a good benchmark for large countries with numerous systems
- Still wide variations between systems: Marseille is at 15%, South Italy has intermittent supply
- Supposedly good performers, yet for France and Spain: mostly physical losses

➔ is 20-22% for physical losses an acceptable figure ?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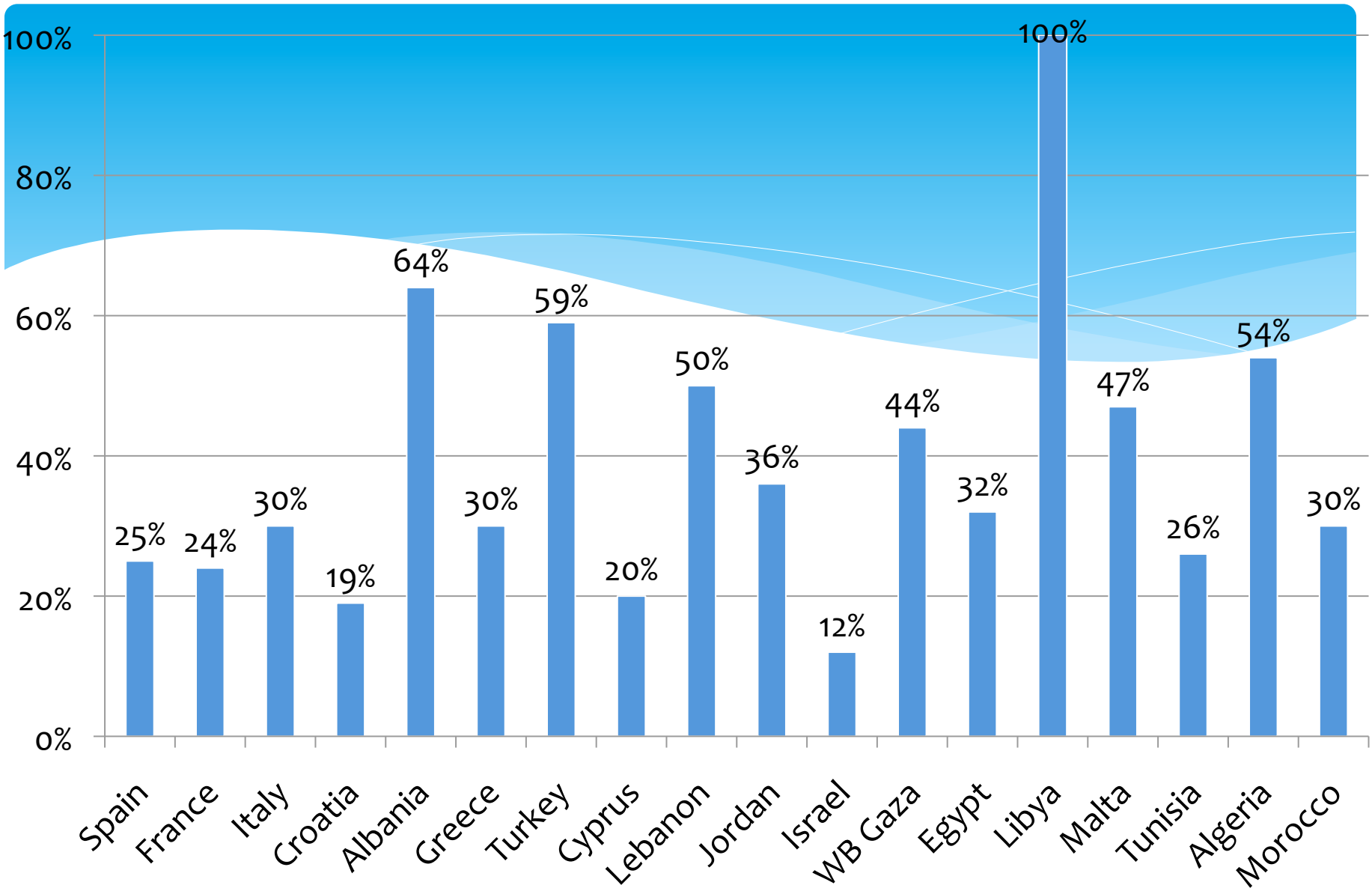
Morocco (30%) and Tunisia (26%)

- Reliable data: full metering, over many years, continuous supply
- Good performers, not far from Spain and France
- Commercial losses are higher than in France or Spain → physical losses are actually comparable?
- Morocco: one dedicated session, utilities under different models, lot of progress in recent years
- Tunisia: impact of tariff freeze over many years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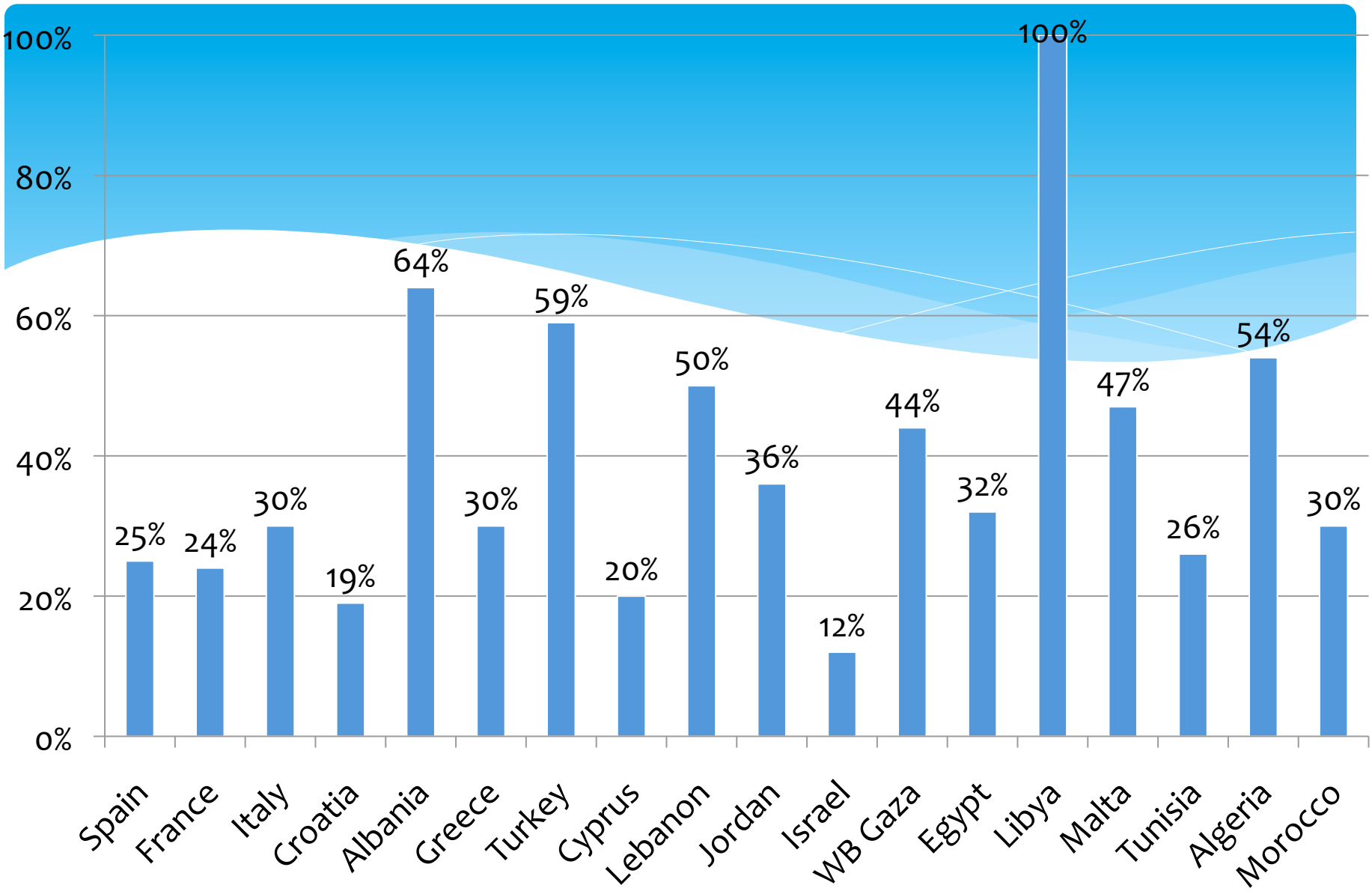
Algeria (54%)

* Very high levels
* Not surprising when starting from acute intermittent supply, and trying to reestablish 24/7
* Algiers has 6 years of good track record, unfortunately SEAL and Suez Algiers could not join us this week due to security situation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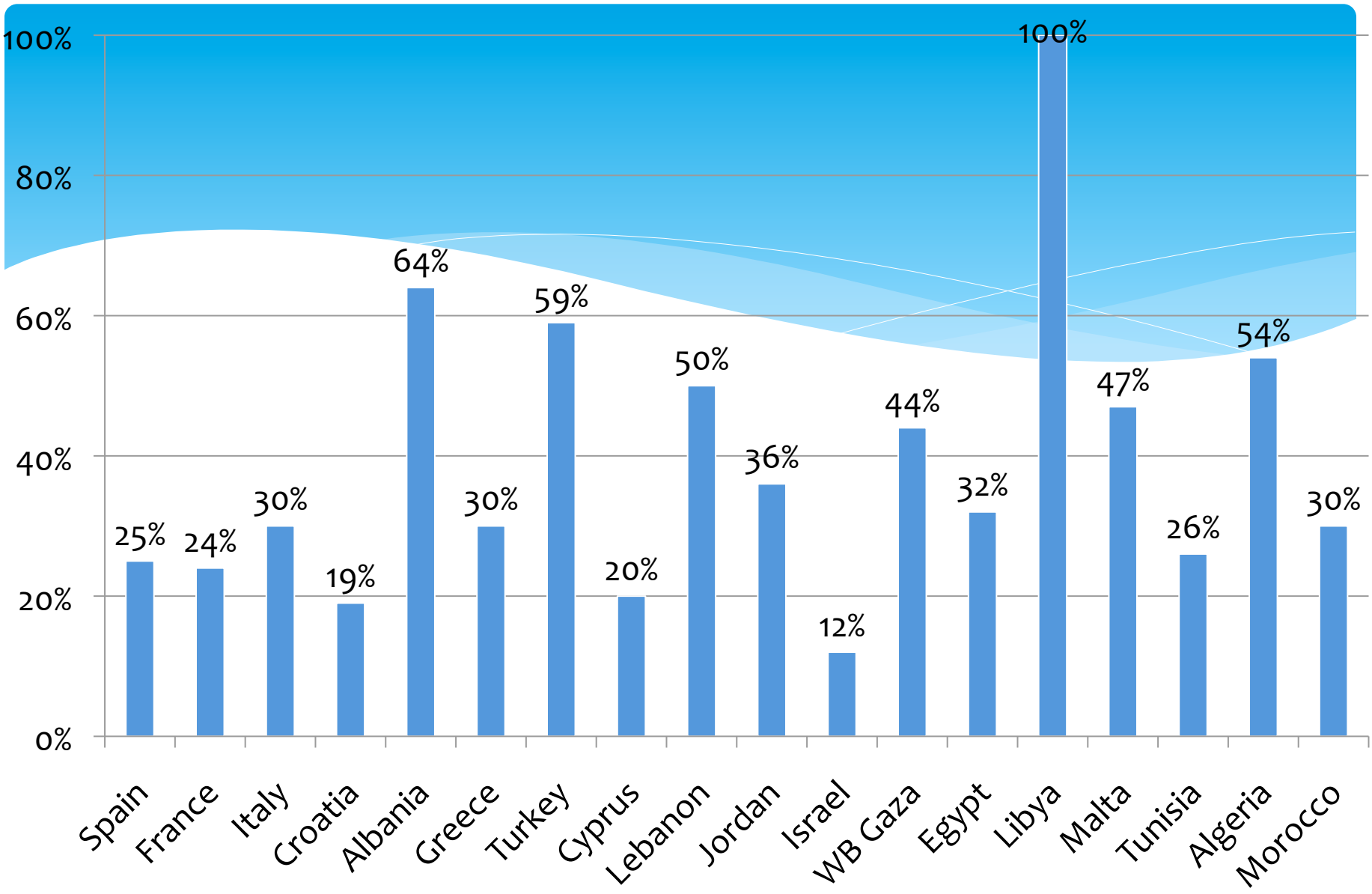
Malta (47%)

* Good illustration why NRW % can be very misleading for certain situations
* Extreme water scarcity on the two islands
* Full IWA methodology, **leakage reduced to 15%**, based on ILI indicator it is close to optimal economical level

➔ **Extremely efficient with physical/real losses**

* But commercial losses 30%, under-metering with roof tanks: a political/institutional problem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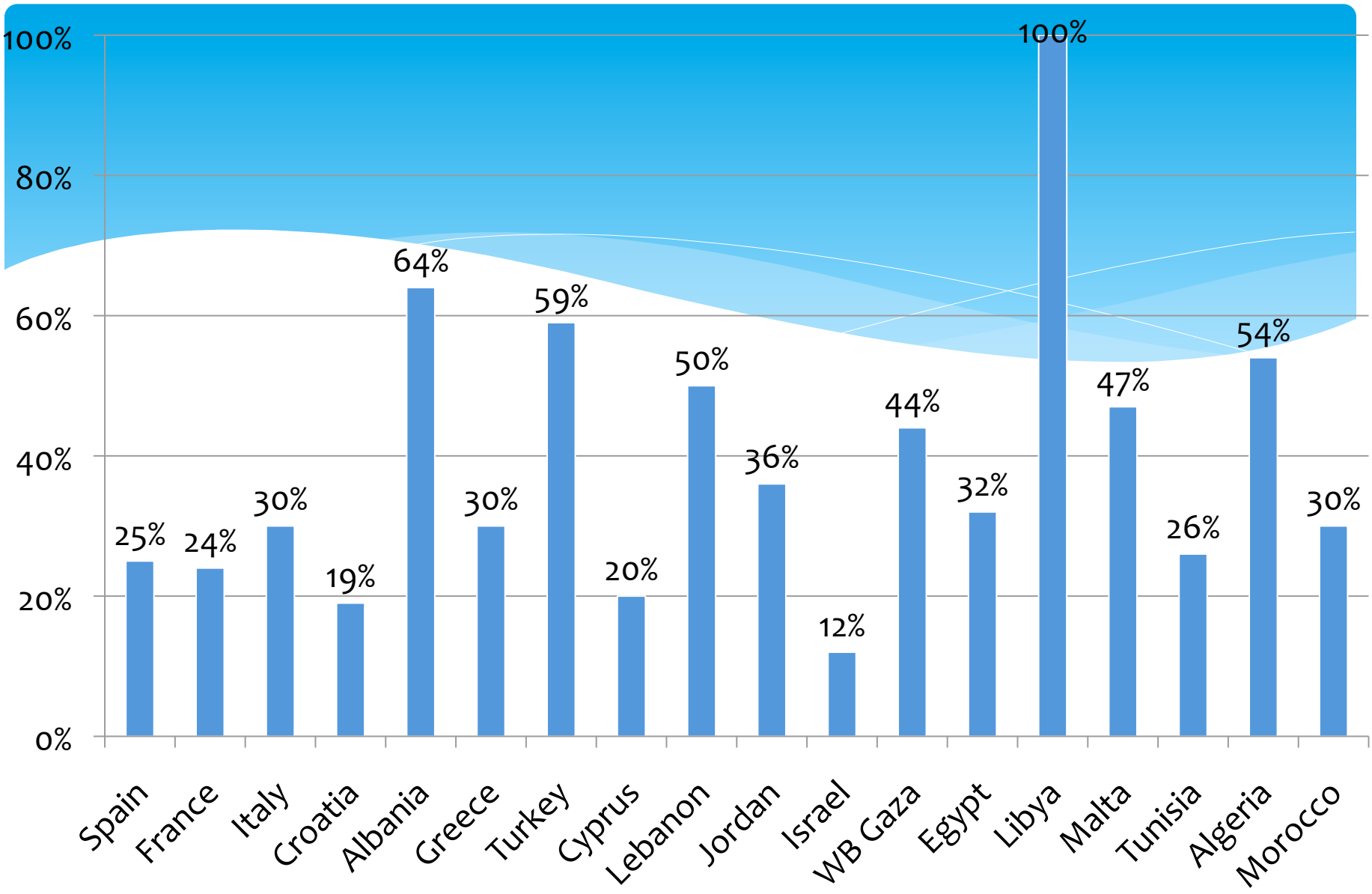
Libya : 100%

* Almost all water comes from no-renewable resources (desert aquifer or desalination)
* No controls over leakage
* No metering at the moment
* Only large customers were seemingly metered and billed before…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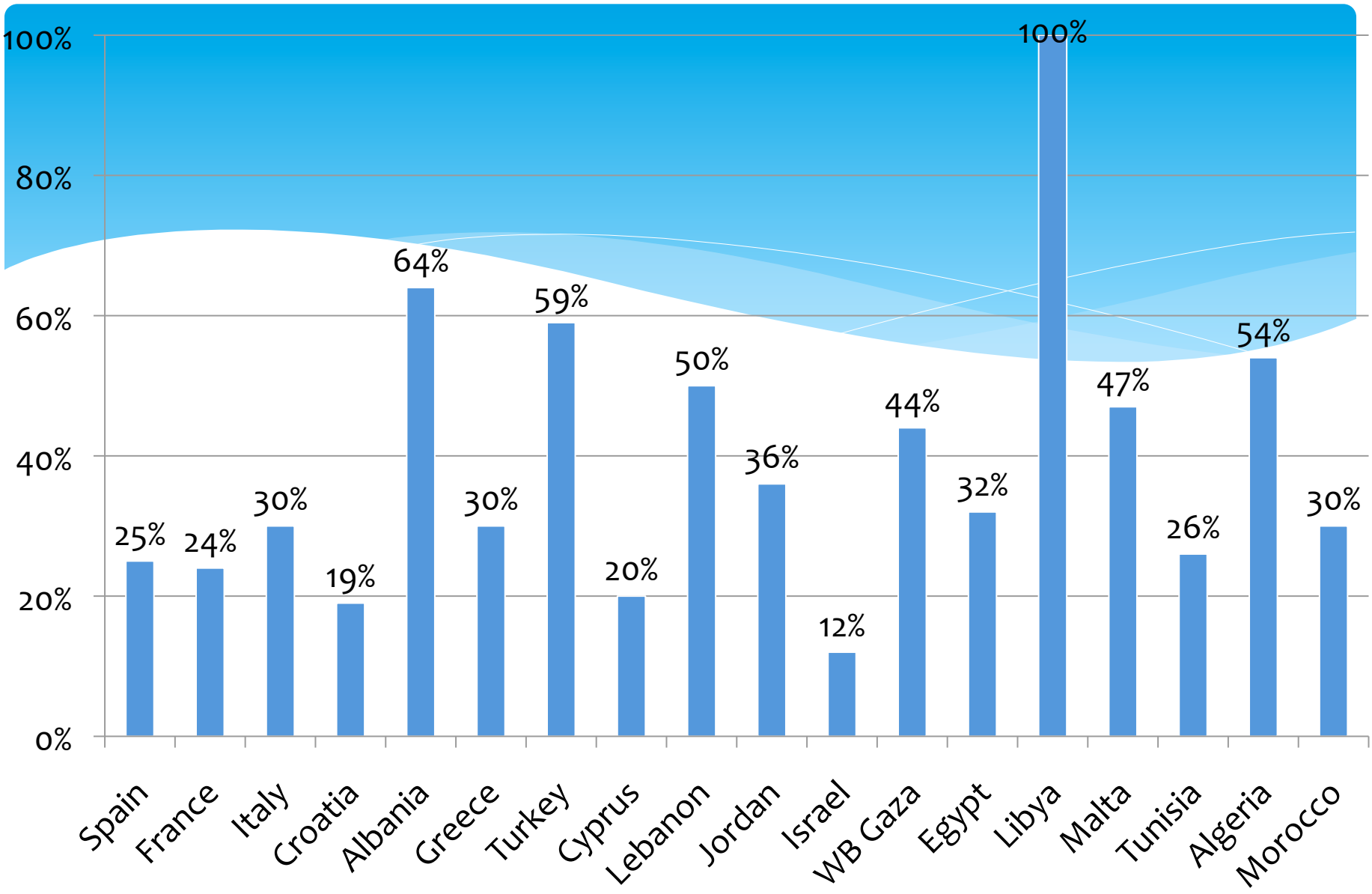
Egypt : 32 %

* But with many unmetered customers (25%?)
* Importance of intermittent supply?

* Presentation from national holding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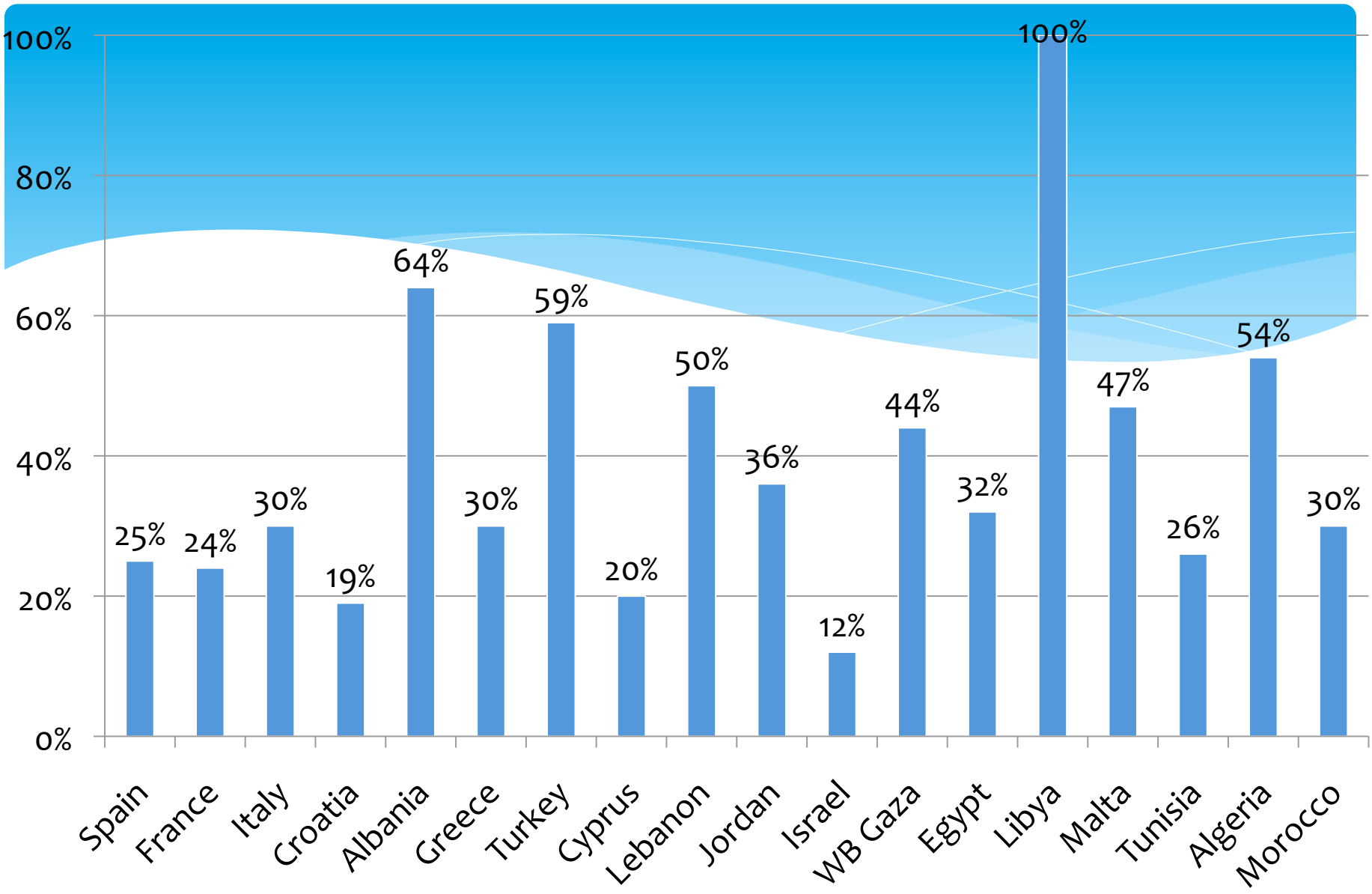
Jordan : 36 %

* Situation of acute water scarcity
* Huge effort to reduce water losses over last decade, but starting with intermittent supply
* % would be higher if 24/7
* Presentation on Amman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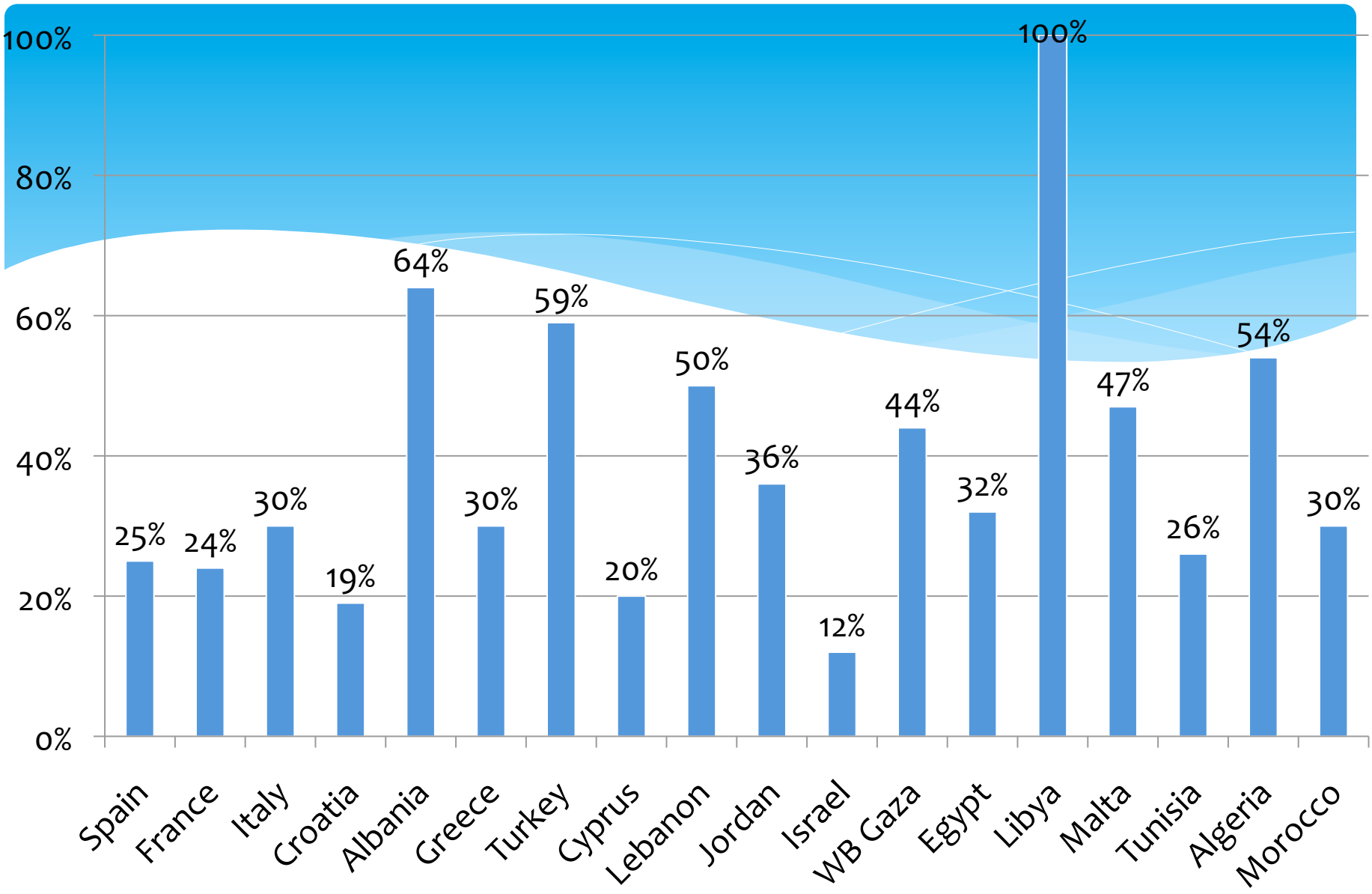
Cyprus: 25 %

* Water scarcity
* Good performance by main water boards, application of IWA methodology
* Presentation on the case of Limassol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Croatia: 19%

* ???????

* Data from IBNET

Albania: 64%

* Gathering data has been problematic
* Huge losses, AND intermittent supply !
* Study on smaller cities, what has been achieved under NRW projects